PB-230 441

POLLUTION OF LAKE ERIE AND ITS TRIBUTARIES. PROCEEDINGS OF MEETING (3RD) HELD AT CLEVELAND, OHIO ON JUNE 22, 1966. VOLUME II

Federal Water Pollution Control Administration
Washington, D.C.

22 June 1966

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* * *

Before

THE WATER POLLUTION CONTROL BOARD

DEPARTMENT OF HEALTH

STATE OF OHIO

In the Matter of the)
) Order to Show Cause - Case No. 64
Village of Walbridge, Ohio) (Continued)

FINDING AND ORDER

The Board coming now to consider the evidence and arguments presented in the hearing on this matter finds:

> That due notice of this hearing has been given to the respondent herein pursuant to Sections 6111.06 (c) and 119.07, Revised Code.

It is therefore

ORDERED, that this hearing be continued until 10:00 a.m. E.S.T., June 14, 1966, in the Conference Room of the Ohio Department of Health, Room 155, 450 East Town Street, Columbus, Ohio.

ORDERED, that the respondent herein, the Village of Walbridge, Ohio, advertise for bids and award all contracts for construction of proposed sewerage facilities for discharge of sewage from Walbridge into the Toledo sewerage system in accordance with approved detail plans.

ORDERED, that the respondent submit June 1, 1966, a report of progress concerning construction of the proposed sewerage.

It is further

ORDERED, that a certified copy of this order be served forthwith by certified mail upon the respondent herein.

E. W. Arnold, M. D., Chairman

J. Gordon Peltier, Vice Chairman

Fred E. Morr

Barton Holl

S. D. Bresler

Adopted April 12, 1966, at Columbus, Ohio.

* * * * * * * *

Before

THE WATER POLLUTION CONTROL BOARD

DEPARTMENT OF HEALTH

STATE OF OHIO

In the Matter of the)
) Order to Show Cause - Case No. 69
City of Westlake, Ohio) (Continued)

FINDING AND ORDER

The Board coming now to consider the evidence and arguments presented in the hearing on this matter finds:

That due notice of this hearing has been given to the respondent herein pursuant to Sections 6111.06 (C) and 119.07, Revised Code.

It is therefore

ORDERED, that this hearing be continued until 10:00 a.m. E.S.T., September 13, 1966, in the Conference Room of the Ohio Department of Health, Room 155, 450 East Town Street, Columbus, Ohio.

ORDERED, that the respondent herein, the City of Westlake, Ohio, submit by August 1 and September 1, 1966, reports with respect to status of litigation pending in the local courts concerning sewer assessments affecting construction of the city's proposed sewerage.

It is further

ORDERED, that a certified copy of this order be served forthwith by certified mail upon the respondent herein.

E. W. Arnold, M. D., Chairman

J. Gordon Peltier, Vice Chairman

Robert W. Teater

Barton Holl

Adopted June 14, 1966, at Columbus, Ohio.

* * * * * * *

Re: Conneaut
Sewerage

November 10, 1965

Mayor and Council
City Hall
Conneaut, Ohio 44030

Gentlemen:

As a result of Board action November 9, 1965, enclosed is renewal permit for the discharge of sewage from your municipality into "waters of the state" pursuant to the provisions of the Water Pollution Control Act of Ohio.

You will note that this permit expires September 15, 1966. Renewal of this permit is contingent upon compliance with the following Orders:

1. Provide satisfactory operation and maintenance of the existing sewerage and wastewater treatment works including the submission of regular operating reports and annual summaries as required by the Division of Engineering, Ohio Department of Health.
2. Develop a program for the reduction of storm waters into the sanitary sewers and submit a report on the progress made.
3. Submit a report setting forth:
   (a) Percent of area of city presently unsewered.
   (b) Percent of unsewered area developed or subject to development.
   (c) Sanitary sewerage completed, placed under construction, or planned for construction during this permit period.

4. Submit a report and general plan for compliance with the Conclusions and Recommendations of the Lake Erie Conference (copy enclosed), with special reference to Sections 7, 8, 9, and 10 concerning the means to maximize the reduction of biochemical oxygen demand, phosphates, and coliform concentrations.

Should you have any questions with respect to the above Orders, please notify us promptly.

Yours very truly,

E. W. Arnold, M. D., Chairman

Water Pollution Control Board

Enc.-Permit 84.15

-Recom. & Concl.

Certified mail

cc: Health Commissioner

cc: District Office

* * * * * * *

Before

THE WATER POLLUTION CONTROL BOARD

DEPARTMENT OF HEALTH

STATE OF OHIO

In the Matter of the)
) Order to Show Cause - Case No. 79
City of Bellevue, Ohio) (Continued)

FINDING AND ORDER

The Board coming now to consider the evidence and arguments presented in the hearing on this matter finds:

> That due notice of this hearing has been given to the respondent herein pursuant to Sections 6111.06 (C) and 119.07, Revised Code.

It is therefore

ORDERED, that this hearing be continued until 10:00 a.m., January 10, 1967, in the Conference Room of the Ohio Department of Health, Room 155, 450 East Town Street, Columbus, Ohio.

ORDERED, that the respondent herein, the City of Bellevue, Ohio, complete and secure approval by the Ohio Department of Health of detail plans and specifications of proposed sewerage and wastewater treatment facilities.

ORDERED, that the respondent complete all legislation and legal steps necessary to issue and sell bonds, notes, or other securities for construction, operation, and maintenance of the proposed sewerage and wastewater treatment facilities.

ORDERED, that the respondent advertise for bids and award all contracts for construction of the proposed sewerage and wastewater treatment facilities in accordance with approved detail plans.

ORDERED, that the respondent submit June 1, September 1, and November 15, 1966, reports indicating accomplishments toward construction of necessary sewerage and wastewater treatment facilities.

It is further

ORDERED, that a certified copy of this order be served forthwith by certified mail upon the respondent herein.

E. W. Arnold, M. D., Chairman

J. Gordon Peltier, Vice Chairman

Fred E. Morr

Barton Holl

S. D. Bresler

Adopted April 12, 1966, at Columbus, Ohio.

* * * * * * *

Re: Amherst

Sewerage

January 17, 1966

Mayor and Council
Municipal Building
Amherst, Ohio 44001

Gentlemen:

Enclosed is renewal permit for the discharge of sewage from your municipality into "waters of the state" pursuant to the provisions of the Water Pollution Control Act of Ohio.

You will note that this permit expires December 15, 1966. Renewal of this permit is contingent upon compliance with the following conditions:

1. Submit a report and general plan for compliance with the Conclusions and Recommendations of the Lake Erie Conference (copy enclosed), with special reference to Sections 7, 8, 9, 10, and 11 concerning the means to maximize the reduction of biochemical oxygen demand, phosphates, and coliform concentrations.
2. Provide satisfactory operation and maintenance of the existing sewerage and wastewater treatment works including the submission of regular operating reports and annual summaries as required by the Division of Engineering, Ohio Department of Health.
3. Submit a status report with respect to sanitary sewerage placed under construction, completed, or planned during the period of this permit.

Prior to December 15, 1966, you will be expected to comply with Regulation 452, Ohio Sanitary Code, by placing your wastewater treatment plant under the responsible charge of a full-time employee of the municipality who possesses an operator's certificate appropriate for this Class II plant, and to continue technical supervision until the operator is properly certified.

Extension beyond December 15, 1966, for the certification of your operator does not appear warranted.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,

E. W. Arnold, M. D., Chairman

Water Pollution Control Board

Enc.-Permit 772.13

-Recom. & Concl.

Certified mail

cc: Supt. Wastewater Treat. Plant

cc: Health Commissioner

cc: District Office

STATUS OF MUNICIPAL WASTE TREATMENT FACILITIES
DIRECT TO LAKE ERIE

Entity	1965 Pop.	Receiving Stream	Type Sew.Syst. Treat.& Design	Date Built	Current Status	Additional Requirements	Schedule	Remarks
Cities								
Ashtabula	25,036	L.Erie	S - Int.+ D 55,000 PE	1955	I	RGP-WTPI (Sec.)	12-15-66	
Avon Lake	11,992	L.Erie	C - Int.+ D 16,590 PE	1961	I	RGP-WTPI (Sec.)	12-15-66	
Cleveland - See Cuyahoga River Basin.								
Euclid	66,742	L.Erie	S - Int.+ D 100,000 PE	1960	I	RGP-WTPI (Sec.)	12-15-66	
Oregon	14,829	L.Erie			I	RGP-SWTP	7-15-66	Part trib. to Toledo Sew.Syst.-remainder no public sewers.
Sandusky	33,841	L.Erie	S & C Pr.+ D 49,300 PE	1959	I	RGP-WTPI (Sec.)	12-15-66	See Brd Ltr 12-15-65.
Willoughby[(a)]	34,525	L.Erie	S - Int.+ D 33,800 PE	1961	I	Hire Engr. for RGP-WTPI (Sec.)	4-15-67	
Villages								
Geneva-on-the-Lake	706	L.Erie	S - Pr.+ D 5,000 PE	1928	I	ditto	12-15-66	
Harbor View	280	L.Erie	No pub.sewers		I			To be trib.to Oregon's new system.

(a) - Eastlake - 27,525 pop. - trib.to Willoughby sewerage system.

STATUS OF MUNICIPAL WASTE TREATMENT FACILITIES
DIRECT TO LAKE ERIE - Contd.

Entity	1965 Pop.	Receiving Stream	Type Sew.Syst. Treat.& Design	Date Built	Current Status	Additional Requirements	Schedule	Remarks
Sewer Districts								
Cuyahoga County								
Rocky River S.D. #6		L.Erie	S - Int.+ D 160,000 PE	1962	I	RGP-WTPI (Sec.)	8-15-66	
Erie County								
E.Erie Co. S&W Dist. Ruggles Beach-Mittiwanga		L.Erie	S - Pr.+ D 1,300 PE	1921	I	Hire Engr. for RGP-WTPI (Sec.)	7-15-66	
Perkins-Margaretta W&SD Columbus Park		L.Erie	S - Sec.+ D 750 PE	1957	A			
Perkins-Margaretta W&SD Hinde Subdiv.		L.Erie	S - Sec.+ D 1,000 PE	1957	A			
Lake County								
Madison S.D. #1		L.Erie	S - Int.+ D 9,000 PE	'24,'62	I	Hire Engr.for RGP-WTPI (Sec.)		
Willoughby-Mentor S.D.		L.Erie	S - Int.+ D 40,000 PE	1965	I	ditto		

Re: Sandusky

Sewerage

December 15, 1965

Mr. Stuart W. Gosser
City Manager
City Building
222 Meigs Street
Sandusky, Ohio 44870

Dear Sir:

As a result of Board action December 14, 1965, enclosed is renewal permit for the discharge of sewage from your municipality into "waters of the state" pursuant to the provisions of the Water Pollution Control Act of Ohio.

You will note that this permit expires December 15, 1966. Renewal of this permit is contingent upon compliance with the following Orders:

1. Complete the construction of sanitary sewerage for the Cedar Point Area.
2. Provide satisfactory operation and maintenance of the existing sewerage and wastewater treatment works including the submission of regular operating reports and annual summaries as required by the Division of Engineering, Ohio Department of Health.
3. Submit a report and general plan for

compliance with the Conclusions and Recommendations of the Lake Erie Conference (copy enclosed), with special reference to Sections 7, 8, 9, 10, and 11 concerning the means to maximize the reduction of biochemical oxygen demand, phosphates, and coliform concentrations.

Should you have any questions with respect to the above Orders, please notify us promptly.

Yours very truly,

E. W. Arnold, M.D., Chairman
Water Pollution Control Board

Enc.-Permit 287.15
-Recom. & Concl.

Certified mail

cc: Mayor and Commission
cc: Havens & Emerson
cc: Health Commissioner
cc: District Office

* * * * *

STATUS OF INDUSTRIAL WASTE TREATMENT FACILITIES
LAKE ERIE DRAINAGE AREA IN OHIO
ASHTABULA RIVER BASIN

Entity	Type of Waste	Treatment Provided	Status	Additional Requirements	Schedule	Remarks
Cabot Titania Corporation Titanium Dioxide Plant	Chemical Suspended solids	Settling basins	I	Imprvts to treat.& control facils -UC	Compl. 9-1-66	See Brd Ltr 2-21-66
Cabot Titania Corporation Titanium Tetrachloride Unit	Chem,Susp.solids	Lagoons	I	Imprvts to treat.& control facils -UC	Compl. 9-1-66	See Brd Ltr 2-21-66
Detrex Chem.Industries,Inc. Chlorinated Solvents Div.	Chemical Hydrocarbons	Lagoons settling Neutraliz.	I	Imprvts to treat.& control facils -UC	Compl. 9-1-66	See Brd Ltr 2-21-66
Diamond Alkali Co. Semi-Works	Chem.,Acids Susp.solids	Neutraliz. Chem.treat. settling incineration	I	Imprvts to treat.& control facils -UC	Compl. 9-1-66	See Brd Ltr 2-21-66
The General Tire & Rubber Co., Chem.Div.	Chem.solids	Chem.treat. settling	I	Imprvts to treat.& control facils -UC	Compl. 9-1-66	See Brd Ltr 2-21-66
Olin Mathieson Chem.Corp. TDI Facility	Chem.solids	Lagoons	I	Imprvts to treat.& control facils -UC	Compl. 9-1-66	See Brd Ltr 2-21-66
Reactive Metals,Inc. Extrusion Plant	Metal Fabric.	Chem.treat. Filtration	A			
Reactive Metals,Inc. Metals Reduction Plant	Chem.,Acids Solids	Neutraliz. settling	I	Imprvts to treat.& control facils -UC	Compl.last quarter 1966	See Brd Ltr 2-21-66
Reactive Metals,Inc. Sodium & Chlorine Plant	Chem.Susp.& Dissolved solids	Settling ponds	I	Imprvts to treat.& control facils -UC	Compl.last quarter 1966	See Brd Ltr 2-21-66

Re: Ashtabula County

Ashtabula Township

Ind. Wastes-Sew. February 21, 1966

Cabot Titania Corporation

P. O. Box 160

Ashtabula, Ohio 44004

Attention Mr. Edward J. Holland, Manager

Gentlemen:

As a result of Board action February 8, 1966, enclosed is renewal permit for the discharge of industrial wastes and sanitary sewage from your Titanium Dioxide Unit into "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires September 1, 1966. Renewal of this permit is contingent upon compliance with the following Orders:

1. The satisfactory maintenance and operation of the wastes treatment facilities provided in order to obtain the maximum performance of these devices; submitting to the Division of Engineering, Ohio Department of Health, at regular monthly intervals, reports including information and analytical data pertinent to

the operation and to the performance of the wastes treatment and disposal facilities.

2. Continued participation in the Ashtabula Township Industrial Association in the evaluation of the effluent of this plant and of the effects of the discharge on the waters of Field Brook.
3. The completion of the additional industrial wastes treatment and control facilities now under construction.
4. The submission of a report setting forth information to indicate compliance with the Recommendations and Conclusions of the Lake Erie Conference (copy enclosed), with particular reference to Sections 12, 13, and 16.

Should you have any questions with respect to the above Orders, please notify us promptly.

Yours very truly,

E. W. Arnold, M. D., Chairman

Water Pollution Control Board

Enc.-Permit 1824.3

-Recom. & Concl.

Certified mail

cc: Health Commissioner

cc: District Office

Re: Ashtabula County
Ashtabula Township
Ind. Wastes-Sew. February 21, 1966

Cabot Titania Corporation
P. O. Box 160
Ashtabula, Ohio 44004

Attention Mr. Edward J. Holland, Manager

Gentlemen:

As a result of Board action February 8, 1966, enclosed is renewal permit for the discharge of industrial wastes and sanitary sewage from your Titanium Tetrachloride Unit into "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires September 1, 1966. Renewal of this permit is contingent upon compliance with the following Orders:

1. The satisfactory maintenance and operation of the wastes treatment facilities provided in order to obtain the maximum performance of these devices; submitting to the Division of Engineering, Ohio Department of Health, at regular monthly intervals, reports including information and analytical data pertinent to

the operation and to the performance of the wastes treatment and disposal facilities.

2. Continued participation in the Ashtabula Township Industrial Association in the evaluation of the effluent of this plant and of the effects of the discharge on the waters of Field Brook.
3. The completion of the additional industrial wastes treatment and control facilities now under construction.
4. The submission of a report setting forth information to indicate compliance with the Recommendations and Conclusions of the Lake Erie Conference (copy enclosed), with particular reference to Sections 12, 13, and 16.

Should you have any questions with respect to the above Orders, please notify us promptly.

Yours very truly,
E. W. Arnold, M. D., Chairman
Water Pollution Control Board

Enc.-Permit 1463.8
-Recom. & Concl.
Certified mail
cc: Health Commissioner
cc: District Office

Re: Ashtabula County

Ashtabula Township

Industrial Wastes February 21. 1966

Detrex Chemical Industries, Inc.
Chlorinated Solvents Plant
P. O. Box 248
Ashtabula, Ohio 44004

Attention Mr. R. Grill, Plant Manager

Gentlemen:

As a result of Board action February 8, 1966, enclosed is renewal permit for the discharge of industrial wastes from your establishment into "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires September 1, 1966. Renewal of this permit is contingent upon compliance with the following Orders:

1. The satisfactory maintenance and operation of the wastes treatment facilities provided in order to obtain the maximum performance of these devices; submitting to the Division of Engineering, Ohio Department of Health, at regular monthly intervals, reports including

information and analytical data pertinent to the operation and to the performance of the wastes treatment and disposal facilities.

2. Continued participation in the Ashtabula Township Industrial Association in the evaluation of the effluent of this plant and of the effects of the discharge on the waters of Field Brook.
3. The completion of the additional industrial wastes treatment and control facilities now under construction.
4. The submission of a report setting forth information to indicate compliance with the Recommendations and Conclusions of the Lake Erie Conference (copy enclosed), with particular reference to Sections 12, 13, and 16.

Should you have any questions with respect to the above Orders, please notify us promptly.

Yours very truly,

E. W. Arnold, M. D., Chairman

Water Pollution Control Board

Enc.-Permit 1172.12

-Recom. & Concl.

Certified mail

cc: Health Commissioner

cc: District Office

* * * * * * *

Re: Ashtabula County
Ashtabula Township
Industrial Wastes

February 21, 1966

Diamond Alkali Company
Semi-Works
P. O. Box 488
Ashtabula, Ohio 44004

Attention Mr. J. J. Browne, Manager

Gentlemen:

As a result of Board action February 8, 1966, enclosed is renewal permit for the discharge of industrial wastes from your establishment into "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires September 1, 1966. Renewal of this permit is contingent upon compliance with the following Orders:

1. The satisfactory maintenance and operation of

the wastes treatment facilities provided in order to obtain the maximum performance of these devices; submitting to the Division of Engineering, Ohio Department of Health, at regular monthly intervals, reports including information and analytical data pertinent to the operation and to the performance of the wastes treatment and disposal facilities.

2. Continued participation in the Ashtabula Township Industrial Association in the evaluation of the effluent of this plant and of the effects of the discharge on the waters of Field Brook.
3. The completion of the additional industrial wastes treatment and control facilities now under construction.
4. The submission of a report setting forth information to indicate compliance with the Recommendations and Conclusions of the Lake Erie Conference (copy enclosed), with particular reference to Sections 12, 13, and 16.

Should you have any questions with respect to the above Orders, please notify us promptly.

Yours very truly,

E. W. Arnold, M. D., Chairman
Water Pollution Control Board

Enc.-Permit 1742.4
-Recom. & Concl.

Certified mail

cc: Mr. F. H. Rockwell

cc: Health Commissioner

cc: District Office

* * * * * * * *

Re: Ashtabula County
Ashtabula Township
Ind.Wastes-Sew.

February 21, 1966

The General Tire & Rubber Company
Chemical Division
P. O. Box 68
Ashtabula, Ohio 44004

Attention Mr. Richard R. Mattiko

Gentlemen:

As a result of Board action February 8, 1966, enclosed is renewal permit for the discharge of industrial wastes and sanitary sewage from your establishment into "waters of the state" pursuant to the provisions of the

Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires September 1, 1966. Renewal of this permit is contingent upon compliance with the following Orders:

1. The satisfactory maintenance and operation of the wastes treatment facilities provided in order to obtain the maximum performance of these devices; submitting to the Division of Engineering, Ohio Department of Health, at regular monthly intervals, reports including information and analytical data pertinent to the operation and to the performance of the wastes treatment and disposal facilities.
2. Continued participation in the Ashtabula Township Industrial Association in the evaluation of the effluent of this plant and of the effects of the discharge on the waters of Field Brook.
3. The completion of the additional industrial wastes treatment and control facilities now under construction.
4. The submission of a report setting forth information to indicate compliance with the

Recommendations and Conclusions of the Lake Erie Conference (copy enclosed), with particular reference to Sections 12, 13, and 16.

Should you have any questions with respect to the above Orders, please notify us promptly.

Yours very truly,

E. W. Arnold, M. D., Chairman

Water Pollution Control Board

Enc.-Permit 1369.9

-Recom. & Concl.

Certified mail

cc: Health Commissioner

cc: District Office.

* * * * * * *

Re: Ashtabula County

Ashtabula Township

Industrial Wastes

February 21, 1966

Olin Mathieson Chemical Corporation

Chemicals Division

P. O. Box 206

Ashtabula, Ohio 44004

Attention Mr. G. P. Palmer, Plant Manager

Gentlemen:

As a result of Board action February 8, 1966, enclosed is renewal permit for the discharge of industrial wastes from your establishment into "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires September 1, 1966. Renewal of this permit is contingent upon compliance with the following Orders:

1. The satisfactory maintenance and operation of the wastes treatment facilities provided in order to obtain the maximum performance of these devices; submitting to the Division of Engineering, Ohio Department of Health, at regular monthly intervals, reports including information and analytical data pertinent to the operation and to the performance of the wastes treatment and disposal facilities.
2. Continued participation in the Ashtabula Township Industrial Association in the evaluation of the effluent of this plant and of the effects of the discharge on the waters of Field Brook.

3. The completion of the additional industrial wastes treatment and control facilities now under construction.
4. The submission of a report setting forth information to indicate compliance with the Recommendations and Conclusions of the Lake Erie Conference (copy enclosed), with particular reference to Sections 12, 13, and 16.

Should you have any questions with respect to the above Orders, please notify us promptly.

Yours very truly,
E. W. Arnold, M. D., Chairman
Water Pollution Control Board

Enc.-Permit 1860.2
-Recom. & Concl.
Certified mail
cc: Health Commissioner
cc: District Office.

* * * * * * *

Re: Ashtabula County
Ashtabula Township
Ind. Wastes-Sew.

February 18, 1966

Reactive Metals, Inc.

P. O. Box 579

Ashtabula, Ohio 44004

Gentlemen:

Enclosed is renewal permit for the discharge of industrial wastes and sanitary sewage from your Extrusion Plant into "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires January 1, 1967. Renewal of this permit is contingent upon compliance with the following conditions:

1. The satisfactory maintenance and operation of facilities which have been provided for the treatment and disposal of the sanitary wastes of this plant.
2. The satisfactory maintenance and operation of facilities which have been provided for the treatment and disposal of the industrial wastes of this plant.
3. The submission to the Division of Engineering, Ohio Department of Health, at regular monthly intervals, of reports to include information and analytical data pertinent to the operation

of the sanitary and industrial wastes treatment and disposal facilities and pertinent to the evaluation of the effects on the receiving stream..

The requirement of submission of data with respect to the receiving stream (Condition 3) can be accomplished by participating in a cooperative stream monitoring program instituted and carried out by industries discharging waste effluents into Field Brook.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,

E. W. Arnold, M. D., Chairman

Water Pollution Control Board

Enc.-Permit 1865.2

Certified mail

cc: Health Commissioner

cc: District Office

* * * * * * * *

Re: Ashtabula County

Ashtabula Township

Industrial Wastes

February 21, 1966

Reactive Metals, Inc.
P. O. Box 35
Ashtabula, Ohio 44004

Attention Mr. R. L. Swain, General Manager

Gentlemen:

As a result of Board action February 8, 1966, enclosed is renewal permit for the discharge of industrial wastes from your Metals Reduction Plant into "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires September 1, 1966. Renewal of this permit is contingent upon compliance with the following Orders:

1. The satisfactory maintenance and operation of the wastes treatment facilities provided in order to obtain the maximum performance of these devices; submitting to the Division of Engineering, Ohio Department of Health, at regular monthly intervals, reports including information and analytical data pertinent to the operation and to the performance of the wastes treatment and disposal facilities.
2. Continued participation in the Ashtabula Township Industrial Association in the

evaluation of the effluent of this plant and of the effects of the discharge on the waters of Field Brook.

3. The completion of the additional industrial wastes treatment and control facilities now under construction.
4. The submission of a report setting forth information to indicate compliance with the Recommendations and Conclusions of the Lake Erie Conference (copy enclosed), with particular reference to Sections 12, 13, and 16.

Should you have any questions with respect to the above Orders, please notify us promptly.

Yours very truly,

E. W. Arnold, M. D., Chairman

Water Pollution Control Board

Enc.-Permit 1453.8

-Recom. & Concl.

Certified mail

cc: Health Commissioner

cc: District Office

Re: Ashtabula County

Ashtabula Township

Ind.Wastes-Sew.

February 21, 1966

Reactive Metals, Inc.
P. O. Box 35
Ashtabula, Ohio 44004

Attention Mr. R. L. Swain, General Manager

Gentlemen:

As a result of Board action February 8, 1966, enclosed is renewal permit for the discharge of industrial wastes and sanitary sewage from your Sodium and Chlorine Plant into "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires September 1, 1966. Renewal of this permit is contingent upon compliance with the following Orders:

1. The satisfactory maintenance and operation of the wastes treatment facilities provided in order to obtain the maximum performance of these devices; submitting to the Division of Engineering, Ohio Department of Health, at regular monthly intervals, reports including information and analytical data pertinent to

the operation and to the performance of the wastes treatment and disposal facilities.

2. Continued participation in the Ashtabula Township Industrial Association in the evaluation of the effluent of this plant and of the effects of the discharge on the waters of Field Brook.
3. The completion of the additional industrial wastes treatment and control facilities now under construction.
4. The submission of a report setting forth information to indicate compliance with the Recommendations and Conclusions of the Lake Erie Conference (copy enclosed), with particular reference to Sections 12, 13, and 16.

Should you have any questions with respect to the above Orders, please notify us promptly.

Yours very truly,
E. W. Arnold, M. D., Chairman
Water Pollution Control Board

Enc.-Permit 923.12
-Recom. & Concl.
Certified mail
cc: Health Commissioner
cc: District Office

STATUS OF INDUSTRIAL WASTE TREATMENT FACILITIES
LAKE ERIE DRAINAGE AREA IN OHIO
BLACK RIVER BASIN

Entity	Type of Waste	Treatment Provided	Status	Additional Requirements	Schedule	Remarks
Baldwin Producing Corp.	Oil, Brine	Reinjection of brine	A			
Berea Oil Corporation	Oil, Brine	Reinjection of brine	A			
Chatham Operating Co.	Oil, Brine	Reinjection of brine	A			
Dymo Oil Corporation	Oil, Brine	Reinjection of brine	A			
Carter M. Hanna	Oil, Brine	Reinjection of brine	A			
Locke Manufacturing Co.	Steel-Acid Iron	Neutraliz.	I	Pretreat.facils & disch.to munic. sewage syst.	7-1-66	See Brd Ltr 4-14-66
The Preston Oil Company	Oil, Brine	Controlled injection of brine	A			
Republic Steel Corp. Steel & Tubes Div.	Steel-Acid Iron	Controlled disch.after settling	A			
Republic Steel Corp. Steel & Tubes Div.	Steel-Mill Scale Susp.solids	Settling	A			
Ternstedt Division General Motors Corp.	Metal Finish.	Cyanide oxidation chrome reduction settling	I	Expand treat. facils	UC - Compl.11-15-67	See Brd Ltr 8-30-65

STATUS OF INDUSTRIAL WASTE TREATMENT FACILITIES
LAKE ERIE DRAINAGE AREA IN OHIO
BLACK RIVER BASIN - Contd.

Entity	Type of Waste	Treatment Provided	Status	Additional Requirements	Schedule	Remarks
The United Dairy Company	Milk Processing	Land spray	A			
U. S. Steel Corporation Tubular Operations	Steel-Acid Iron	Neutraliz. & settling	A			Preliminary engrg to be completed, summer 1966
U. S. Steel Corporation Tubular Operations	Steel-Blast Furn. Susp.solids	Clarification	A			ditto
U. S. Steel Corporation Tubular Operations	Steel-Mill Scale Susp.solids	Scale pits	A			ditto
U. S. Steel Corporation Tubular Operations	Phenol	Dephenolizer	A			ditto

Re: Lodi

Industrial Wastes April 14, 1966

Locke Manufacturing Co.
Ohio Street
Lodi, Ohio 44254

Attention Mr. Allen O. Rom

Gentlemen:

Enclosed is permit for the discharge of industrial wastes from your establishment into "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires July 1, 1966. Renewal of this permit is contingent upon compliance with the following conditions:

1. The submission to the Division of Engineering, Ohio Department of Health, of a copy of an agreement with the village of Lodi for the acceptance of the pretreated industrial wastes into the municipal sanitary sewer system.
2. The construction and placing in operation of necessary industrial waste pretreatment facilities to comply with the above agreement.

Notice should be submitted when pretreatment facilities have been placed in operation and the pretreated wastes have been made tributary to the municipal sewerage system so that consideration may be given to exemption of your company's permit.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,

E. W. Arnold, M.D., Chairman

Water Pollution Control Board

Enc.-Permit 1964

Certified mail

cc: Health Commissioner

cc: District Office

* * * * *

Re: Elyria

Industrial Wastes

August 30, 1965

Ternstedt Division

General Motors Corporation

P. O. Box 760

Elyria, Ohio 44036

Gentlemen:

Enclosed is renewal permit for the discharge of industrial wastes from your establishment into "waters of the state" pursuant to the provisions of the Water Pollution Control Act of Ohio.

You will note that this permit expires August 1, 1966. Renewal of this permit is contingent upon compliance with the following conditions:

1. The satisfactory maintenance and operation of facilities which have been provided thus far for the treatment and disposal of industrial wastes incident to the manufacturing processes of this plant.
2. The continued submission to the Division of Engineering, Ohio Department of Health, at regular monthly intervals, of reports to include information and analytical data pertinent to: (1) The operation and performance of the industrial wastes treatment facilities; (2) an evaluation of the total pollution load discharged; and (3) an evaluation of the effects of the discharged wastes on the receiving stream.
3. The prompt reporting of the occurrence and

cause of accidental or intermittent discharges of any wastes which by reason of their volume or characteristics, or both, may have a deleterious effect on the stream from the standpoint of downstream legitimate uses.

4. The placing under construction of proposed additional industrial wastes treatment facilities in accordance with comprehensive plans approved August 12, 1965, notifying the Division of Engineering the date major units are placed into operation.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,

E. W. Arnold, M.D., Chairman

Water Pollution Control Board

Enc.-Permit 734.14

Certified mail

cc: Health Commissioner

cc: District Office

STATUS OF INDUSTRIAL WASTE TREATMENT FACILITIES
LAKE ERIE DRAINAGE AREA IN OHIO
CHAGRIN RIVER BASIN

Entity	Type of Waste	Treatment Provided	Status	Additional Requirements	Schedule	Remarks
Chase Bag Company	Paper Mill	Filtration for removal of solids	A			Additional controls being installed. Compl.by fall of 1966
General Biochemicals A Div.of N.Amer.Mogul Products Company	Chemical Organic	Neutraliz.,settling monitored - discharge	A			
Moss Farm Dairy, Inc.	Milk Proc.	Sand filters	A			
Mulberry Sand & Gravel Co.	Sand & Gravel Susp.solids	Settling	A			
Pennsylvania Glass Sand Corporation Ind. Silica Division (Geauga Plant)	Sand & Gravel Susp.solids	Rake classifier & Settling ponds	A			

STATUS OF INDUSTRIAL WASTE TREATMENT FACILITIES
LAKE ERIE DRAINAGE AREA IN OHIO
CUYAHOGA RIVER BASIN

Entity	Type of Waste	Treatment Provided	Status	Additional Requirements	Schedule	Remarks
Air Reduction Co., Inc. Arcrods Company Div.	Chemical	Settling ponds	A			
Alside Homes Corporation	Sewage only	Secondary treat.	A			
The Bailey Wall Paper Co.	Organic	None	I	Co.expects to relocate by 9-1-66 & provide satis.ind.wastes treat.facils.		
The Burdett Oxygen Co.of Cleveland, Inc.	Suspended & Dissolved Solids	Lagoons	A			
Busson Bros. Sand & Gravel Company	Sand & Gravel Suspended & Dissolved Solids	Lagoon	A			
Cornwell Quality Tools Co.	Metal Finish.	Controlled disch.	A			
The Cuyahoga Meat Co.	Meat Packing	Septic Tank	I	Det.plans of satis. treat.facils.	9-1-66 Constr. compl.by 6/67.	
Diamond Crystal Salt Co.	Chemical	Settling pond	I	Proposal for corrective measures to reduce chlorides.	11-1-66 Constr. of facils by early 1967.	See Brd Ltr - 4-14-66
E. I. duPont deNemours & Company, Inc. Ind.& Biochemicals Dept.	Chemical Acids, Metals	Zinc recovery Acid neutraliz.	I	Imprvts to treat.& disp.facils.	8-1-66	
The Elco Corporation	Oil Treating	Oil Separator H_2S destruct. facils.	A			

STATUS OF INDUSTRIAL WASTE TREATMENT FACILITIES
LAKE ERIE DRAINAGE AREA IN OHIO
CUYAHOGA RIVER BASIN - Contd.

Entity	Type of Waste	Treatment Provided	Status	Additional Requirements	Schedule	Remarks
Ferro Chemical Div.of Ferro Corp.	Chemical Susp. Solids	Clarification	I	Compreh.plan of imprvts to treat. & disp.facils.	10-1-66 Constr.1967	See Brd Ltr 11-26-65
Ford Motor Company Engine Plants #1 & #2	Oils	Oil separation Chem.treat.	A			
General Chemical Div. Allied Chemical Corp. National Works	Chem. Acids & Dissolved Solids	Clarification, in-plant control Lagoon	A			
Goodrich-Gulf Chem., Inc.	Chemical	Chem.& lagoon	A			
Goodyear Aerospace Corp.	Metal Finish.	Control facils	I	Det.plans of treat. & disp.facils or pretreat.facils & disch.to city sewerage syst.	9-1-66	See Brd Ltr 3-16-66
Harshaw Chemical Co.	Metal Salts	In-plant control	I	Sched.for treat.& disp.facils.	1-1-67 Compl.by 1/69	
Hilltop Sand & Gravel Co.	Sand & Gravel Susp. Solids	Lagoons	A			
Jones & Laughlin Steel Corporation	Steel-Acid Iron	Controlled disch.	I	Sched.for plans & constr.of treat.& control facils.	9-1-66 In op. 1-1-69	See Brd Ltr 11-16-65
Jones & Laughlin Steel Corporation	Steel-Blast Furn. Susp.Solids	Clarification	A			See Brd Ltr 12-15-65

STATUS OF INDUSTRIAL WASTE TREATMENT FACILITIES
LAKE ERIE DRAINAGE AREA IN OHIO
CUYAHOGA RIVER BASIN - Contd.

Entity	Type of Waste	Treatment Provided	Status	Additional Requirements	Schedule	Remarks
Jones & Laughlin Steel Corporation	Steel-Mill Scale Susp. Solids	Clarification	I	Report & plan for compliance with Concl.& Recom.of L. Erie Conf.	12-1-66 In op. 1-1-69	See Brd Ltr 1-14-66
The Lamson & Sessions Co.	Oil	Chem.oil separation	A			
Lerkis Asphalt Co., Inc.	Asphalt (Unclass.)	Lagoon	I	Additional treat. facils.	7-1-66	
M & M Sand & Gravel Company, Inc.	Sand & Gravel	Lagoons	A			
Master Anodizers & Platers, Incorporated	Metal Finish.	Chrome reduction	I	Hire engr.to prepare det.plans for addtns to treat.facils.	12-1-66	
Middlefield Swiss Cheese Co-Op	Milk Proc.	Land spray disp.	A			
Ohio Edison Company Gorge Plant	Susp. Solids	Fly ash lagoon	A			Heat load under study See Brd Ltr 3-28-66
Orangeburg Mfg. Company Div.of The Flintkote Co.	Acids, Susp. Solids	Chem.treat.lagoons	A			
Owens-Illinois Forest Products Div.	Paper Mill	Land spray disp.	I	Det.plans for additional spray irrig. facils.	10-1-66 Constr.compl. 1-1-69	
Republic Steel Corporation						
Bolt & Nut Div.	Steel-Acid Iron	Controlled disch.	I	Report & sched.for completing treat. facils for waste pickle & zinc-cyanid wastes.	8-1-66 In op. 1/69	See Brd Ltr 8-13-65

STATUS OF INDUSTRIAL WASTE TREATMENT FACILITIES
LAKE ERIE DRAINAGE AREA IN OHIO
CUYAHOGA RIVER BASIN - Contd.

Entity	Type of Waste	Treatment Provided	Status	Additional Requirements	Schedule	Remarks
Republic Steel Corp.-contd.						
Cleveland District	Steel-Acid Iron	Controlled disch.	I	Conversion #1 pickle line to HCl plans & constr.HCl-reclam.facils.	8-1-66 In op. 1/69	See Brd Ltr 8-13-65
Cleveland District	Steel-Blast Furn. Susp. Solids	Clarification	I	Det.plans for imprvts to treat. facils.	4-1-67 In op. 1/68	See Brd Ltr 5-19-66
Plants #1 & #2	By-Prod.Coke (Phenol)	Dephenolizer Closed quenching	A			See Brd Ltr 11-16-65
Bolt & Nut Division	Steel-Mill Scale Susp. Solids	Scale pits	A			See Brd Ltr 3-16-66
Cleveland District	Steel-Mill Scale Susp. Solids	Scale pits	I	Det.plans & install. treat.facils with reuse in cold roll mill.	Compl. 4-1-67 In op. 1/68	See Brd Ltr 3-16-66
Research Center	Chemicals	Chem.treatment Clarification	A			
Smallwood Packing Co.,Inc.	Meat Packing	Biological treat.	A			
Sonoco Products Company Ohio Division	Paper Mill	Aeration & clarif.	I	To make connection to Mudbrook Interc. Sewer.	Progress report 6-1-67	Connection to Summit Co.Interc.-UC 8/66 Compl. 1968.
The Standard Oil Co. No. 1 Refinery	Oil Refinery	Oil separation & recovery	I			All refinery operations to be discont. by 7-1-66 at this location.

STATUS OF INDUSTRIAL WASTE TREATMENT FACILITIES
LAKE ERIE DRAINAGE AREA IN OHIO
CUYAHOGA RIVER BASIN - Contd.

Entity	Type of Waste	Treatment Provided	Status	Additional Requirements	Schedule	Remarks
The Standard Oil Co. No. 2 Refinery	Oil Refinery	Oil separation & recovery	A			
U. S. Steel Corporation						
Central Furnaces	Steel-Blast Furn. Susp. Solids	Clarification	I	Report & plan for compliance with Concl.& Recom.of L. Erie Conf.	11-9-66	See Brd Ltr 11-10-65
Central Furnaces	Blast Furnace (Sewage)	None	I	Constr.of sewers for disch.of sewage to city sewage system.	11-1-66	See Brd Ltr 1-14-66
Cuyahoga Works	Steel-Acid Iron	Controlled disch.	I	Report & plan for compliance with Concl.& Recom.of L. Erie Conf.	10-1-66 Facils compl. 8-1-67	See Brd Ltr 1-14-66
Cuyahoga Works	Steel-Mill Scale Susp. Solids	Scale pits	I	Report & plan for compliance with Concl.& Recom.of L. Erie Conf.	10-1-66 Facils compl. 8-1-67	See Brd Ltr 1-14-66
The Walker China Co.	Ceramics Susp. Solids	Lagoon	A			
Weather-Tite Company	Metal Finish.	Aluminum removal	I	Compreh.plans for imprvts to exist. treat.& disp.facils; constr.of imprvts.	7-1-66 UC by 9-1-66	

STATUS OF INDUSTRIAL WASTE TREATMENT FACILITIES
LAKE ERIE DRAINAGE AREA IN OHIO
CUYAHOGA RIVER BASIN - Contd.

Entity	Type of Waste	Treatment Provided	Status	Additional Requirements	Schedule	Remarks
The S. K. Wellman Co. American Brake Shoe Co.	Metal Finish.	Chem.Treat.	A			Needs further study & investigation.
Zirconium Corp.of America	Metals, Acids	Chem.Treat.	A			

Re: Akron

Industrial Wastes April 14, 1966

Diamond Crystal Salt Co.
P. O. Box 151
Akron, Ohio 44309

Attention Mr. Lyle F. Pohly, Plant Manager

Gentlemen:

Enclosed is permit for the discharge of industrial wastes from your establishment into "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires November 1, 1966. Renewal of this permit is contingent upon compliance with the following conditions:

1. The submission prior to May 15, 1966, of a report outlining proposals for compliance with the attached Recommendations and Conclusions of the Lake Erie Conference.
2. The initiation of corrective measures necessary for the reduction and the control of the critical characteristics of the industrial wastes of this plant.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,

E. W. Arnold, M.D., Chairman

Water Pollution Control Board

Enc.-Permit 1962

-Recom. & Concl.

Certified mail

cc: Health Commissioner

cc: District Office

* * * * *

Re: Walton Hills

Industrial Wastes November 26, 1965

Ferro Chemical

Div. of Ferro Corporation

P. O. Box 349

Bedford, Ohio 44014

Attention Mr. E. J. Riley, Plant Manager

Gentlemen:

Enclosed is renewal permit for the discharge of industrial wastes from your establishment into "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires October 1, 1966. Renewal of this permit is contingent upon compliance with the following conditions:

1. The satisfactory maintenance and operation of existing facilities for the the treatment and disposal of industrial wastes; submitting to the Division of Engineering, Ohio Department of Health, at regular monthly intervals, reports to define the quality of effluent discharged to Tinkers Creek.
2. The prompt reporting of the occurrence and cause of accidental or intermittent discharges of any wastes which by reason of their volume or characteristics, or both, may have a deleterious effect on the stream from the standpoint of downstream legitimate uses.
3. The submission to and approval by the Ohio Department of Health of comprehensive plans for the removal of barium compounds and suspended solids from the effluent.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,

E. W. Arnold, M. D., Chairman
Water Pollution Control Board

Enc.-Permit 668.10
Certified mail
cc: Health Commissioner
cc: District Office

* * * * *

Re: Akron
Industrial Wastes

March 16, 1966

Goodyear Aerospace Corporation
1210 Massillon Road
Akron, Ohio 44315

Gentlemen:

Enclosed is permit for the discharge of industrial wastes from your establishments into "waters of the state" pursuant to the provisions of the Water Pollution Control Act of Ohio.

You will note that this permit expires September 1, 1966. Renewal of this permit is contingent upon compliance with the following conditions:

1. Either:
   (a) The submission to the Division of Engineering, Ohio Department of Health,

of a copy of an agreement between your company and the City of Akron for the acceptance of the industrial wastes of your plants into the municipal sanitary sewerage system, or

(b) The submission to and approval by the Ohio Department of Health of detail plans of proposed facilities for the treatment and disposal of the industrial wastes of your plants for discharge to waters of the state.

2. The submission to the Division of Engineering prior to May 15, 1966, of a report indicating proposals for complying with the attached Recommendations and Conclusions of the Lake Erie Conference, giving particular emphasis to Sections 12, 13, 16, 17 and 18.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,

E. W. Arnold, M.D., Chairman
Water Pollution Control Board

Enc.-Permit 1957
-Recom. & Concl.

Certified mail

cc: Health Commissioner

cc: District Office

* * * * *

Re: Cleveland
Industrial Wastes
(Acid Iron) November 16, 1965

Jones and Laughlin Steel Corporation
3341 Jennings Road
Cleveland, Ohio

Gentlemen:

Enclosed is renewal permit for the discharge of industrial wastes from your plant into "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires September 1, 1966. Renewal of this permit is contingent upon compliance with the following conditions:

1. The satisfactory maintenance and operation of facilities provided for the controlled discharge of waste pickle liquor.
2. The submission to the Division of Engineering, Ohio Department of Health, of a proposal for

the treatment or disposal of waste pickling acid and a schedule for the completion of such program, in conformance with commitments to the Water Pollution Control Board, June 8, 1965.

3. The submission to the Division of Engineering, at regular quarterly intervals, of reports to include information regarding flow volumes and pertinent analytical data on the industrial waste discharges.
4. The prompt reporting to the Division of Engineering of the occurrence and cause of any accidental or intermittent discharges of wastes which may have a deleterious effect on the receiving stream.
5. The submission to the Division of Engineering of information pertaining to any plant expansion or process changes which may affect the character of the industrial waste discharges, together with a proposal for providing controls for such discharges so that there will be no deleterious effect on the receiving stream.
6. The submission of a report and general plan for compliance with the Conclusions and

Recommendations of the Lake Erie Conference (copy enclosed), with special reference to Sections 12, 13, and 16.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,

E. W. Arnold, M. D., Chairman
Water Pollution Control Board

Enc.-Permit 205.11
-Recom. & Concl.
Certified mail
cc: Dr. W. H. Jukkola
cc: Health Commissioner
cc: District Office

* * * * *

Re: Cleveland
Industrial Wastes
(Blast Furnace) December 15, 1965

Jones and Laughlin Steel Corporation
3341 Jennings Road
Cleveland, Ohio

Gentlemen:

As a result of Board action December 14, 1965, enclosed is renewal permit for the discharge of industrial wastes from your plant into "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires September 1, 1966. Renewal of this permit is contingent upon compliance with the following Orders:

1. The satisfactory maintenance and operation of facilities provided for the clarification of blast furnace flue gas wash waters.
2. The submission to the Division of Engineering, Ohio Department of Health, at regular quarterly intervals, of reports to include information regarding flow volumes and pertinent analytical data on the industrial waste discharges.
3. The prompt reporting to the Division of Engineering of the occurrence and cause of any accidental or intermittent discharges of wastes which may have a deleterious effect on the receiving stream.
4. The submission to the Division of Engineering of information pertaining to any plant expansion or process changes which may affect

the character of the industrial and waste discharges, together with a proposal for providing controls for such discharges so that there will be no deleterious effect on the receiving stream.

5. The submission of a report and plan for compliance with the Conclusions and Recommendations of the Lake Erie Conference (copy enclosed), with special reference to Sections 12, 13, and 16.

Should you have any questions with respect to the above Orders, please notify us promptly.

Yours very truly,

E. W. Arnold, M.D., Chairman
Water Pollution Control Board

Enc.-Permit 1075.12
-Recom. & Concl. - Certified mail
cc: Dr. W. H. Jukkola
cc: Health Commissioner
cc: District Office

* * * * *

Re: Cleveland
Industrial Wastes
(Mill Scale)

January 14, 1966

Jones & Laughlin Steel Corporation
3341 Jennings Road
Cleveland, Ohio

Gentlemen:

Enclosed is renewal permit for the discharge of industrial wastes from your plant into "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires November 1, 1966. Renewal of this permit is contingent upon compliance with the following conditions:

1. The satisfactory maintenance and operation of facilities provided for the removal of mill scale and oil from the industrial waste discharges.
2. The submission to the Division of Engineering, Ohio Department of Health, at regular monthly intervals, of reports to include information regarding flow volumes and pertinent analytical data on the industrial waste discharges.
3. The prompt reporting to the Division of Engineering of the occurrence and cause of

accidental or intermittent discharges of wastes which may have a deleterious effect on the receiving stream.

4. The submission to the Division of Engineering of information pertaining to any plant expansion or process changes which may affect the character of the industrial waste discharges, together with a proposal for providing controls for such discharges so that there will be no deleterious effect on the receiving stream.
5. The submission of a report and plan for compliance with the Conclusions and Recommendations of the Lake Erie Conference (copy enclosed), with special reference to Section 16-b and -f.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,
E. W. Arnold, M.D., Chairman
Water Pollution Control Board

Enc.-Permit 1149.12
-Recom. & Concl.
Certified mail
cc: Dr. W. H. Jukkola

cc: Health Commissioner

cc: District Office

* * * * *

Re: Akron March 28, 1966

Ind. Wastes-Sew.

Ohio Edison Company
47 North Main Street
Akron, Ohio 44308

Gentlemen:

Enclosed is renewal permit for the discharge of industrial wastes and sanitary sewage from your Gorge Plant into "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires March 1, 1967. Renewal of this permit is contingent upon compliance with the following conditions.

1. The satisfactory maintenance and operation of facilities which have been provided for treatment and disposal of the sanitary sewage of this plant.
2. The satisfactory maintenance and operation of facilities which have been provided at this plant for modification of industrial wastes; submitting to the Division of Engineering, Ohio Department of Health, at regular quarterly intervals, reports to

include information and analytical data pertinent to the definition and to the evaluation of the industrial wastes discharged to the Cuyahoga River.

3. The initiation of a study to define the magnitude and extent of the heat load discharged from this plant on the water temperature of the receiving stream.
4. The submission prior to April 15, 1966, of a report setting forth a proposal for compliance with the Conclusions and Recommendations of the Lake Erie Conference, as requested in a letter dated December 29, 1965.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,
E. W. Arnold, M.D., Chairman
Water Pollution Control Board

Enc.-Permit 1295.9
Certified mail
cc: Health Commissioner
cc: District Office

* * * * *

Re: Cleveland

Industrial Wastes

(Acid Iron) August 13, 1965

Republic Steel Corporation
Bolt and Nut Division
Cleveland, Ohio

Gentlemen:

Enclosed is renewal permit for the discharge of industrial wastes from your plant into "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires August 1, 1966. Renewal of this permit is contingent upon compliance with the following conditions:

1. The satisfactory maintenance and operation of facilities and procedures which have been instituted for controlled discharge of acid pickle liquors.
2. The submission to the Division of Engineering, Ohio Department of Health, of a proposal for the treatment or disposal of the waste pickling acid from this plant and a schedule for the completion of the proposed program.

3. The submission to the Division of Engineering of a proposal or detail plans of facilities for the treatment or disposal of zinc and cyanide wastewater from this plant and a schedule for the completion of the proposed program.
4. The submission to the Division of Engineering, upon request, of reports incorporating flow measurements and analytical data pertinent to the definition of the characteristics of the wastes and to the evaluation of the pollution loads as represented by critical constituents of the wastes.
5. The prompt reporting of the occurrence and cause of accidental or intermittent discharges of any wastes which by reason of their volume or characteristics, or both, may have a deleterious effect on the stream from the standpoint of downstream legitimate uses.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,

E. W. Arnold, M.D., Chairman
Water Pollution Control Board

Enc.-Permit 1207.10

Certified mail

cc: Mr. L. F. Birkel

cc: Health Commissioner

cc: District Office

* * * * *

Re: Cleveland
Industrial Wastes
(Acid Iron)

August 13, 1965

Republic Steel Corporation
Cleveland District
Cleveland, Ohio

Gentlemen:

Enclosed is renewal permit for the discharge of industrial wastes from your plant into "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires August 1, 1966. Renewal of this permit is contingent upon compliance with the following conditions:

1. The satisfactory maintenance and operation of the facilities which have been provided for

the controlled discharge of all the waste pickle liquors of this plant.

2. The completion of the conversion of No. 1 pickling line to the use of hydrochloric acid.
3. The planning and initiation of construction of hydrochloric acid reclamation facilities.
4. The continued monitoring of the Cuyahoga River to determine the effect of industrial waste discharges on the stream water quality; submitting to the Division of Engineering, Ohio Department of Health, upon request, reports on information obtained by monitoring and defining the characteristics of the wastes as discharged.
5. The prompt reporting of the occurrence and cause of accidental or intermittent discharges of any wastes which by reason of their volume or characteristics, or both, may have a deleterious effect on the stream from the standpoint of downstream legitimate uses.

The report presented to the Water Pollution Control Board on June 8, 1965, is accepted as your schedule for the elimination of acid pickling wastewater discharges.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,

E. W. Arnold, M.D., Chairman
Water Pollution Control Board

Enc.-Permit 1208.10

Certified mail

cc: Mr. L. F. Birkel

cc: Health Commissioner

cc: District Office

* * * * *

Re: Cleveland
Industrial Wastes
(Blast Furnace)

May 19, 1966

Republic Steel Corporation
Cleveland District
3100 East 45th Street
Cleveland, Ohio

Gentlemen:

Enclosed is renewal permit for the discharge of industrial wastes from your plant into "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires April 1,

1967. Renewal of this permit is contingent upon compliance with the following conditions:

1. The satisfactory maintenance and operation of facilities provided for the clarification of blast furnace flue gas wash waters.
2. The submission to and approval by the Ohio Department of Health of detail plans for the relocation of the Westside slurry pumps, increasing the filtering capacity and improving the efficiency of the existing thickeners.
3. The submission to the Division of Engineering, Ohio Department of Health, at regular quarterly intervals, of reports to include information regarding flow volumes and pertinent analytical data on the industrial waste discharges.
4. The prompt reporting to the Division of Engineering of the occurrence and cause of any accidental or intermittent discharges of wastes which may have a deleterious effect on the receiving stream.
5. The submission to the Division of Engineering of information pertaining to any plant expansion or process changes which may affect

the character of the industrial waste discharges, together with a proposal for providing controls for such discharges so that there will be no deleterious effect on the receiving stream.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,
E. W. Arnold, M.D., Chairman
Water Pollution Control Board

Enc.-Permit 1078.13
Certified mail
cc: Mr. L. F. Birkel
cc: Health Commissioner
cc: District Office

* * * * *

Re: Cleveland
Industrial Wastes
(Phenol)

November 16, 1965

Republic Steel Corporation
3100 East 45th Street
Cleveland, Ohio 44127

Gentlemen:

Enclosed is renewal permit for the discharge of industrial wastes from your By-Product Coke Plants Nos. 1 and 2 into the "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires September 1, 1966. Renewal of this permit is contingent upon compliance with the following conditions:

1. The satisfactory maintenance and operation of the dephenolizing facilities provided.
2. The submission to the Division of Engineering, Ohio Department of Health, at regular quarterly intervals, of reports to include information regarding flow volumes and pertinent analytical data on the industrial waste discharges.
3. The prompt reporting to the Division of Engineering of the occurrence and cause of any accidental or intermittent discharges of wastes which may have a deleterious effect on the receiving stream.
4. The submission to the Division of Engineering of information pertaining to any plant expansion or process changes which may affect the character of the industrial waste

discharges, together with a proposal for providing controls for such discharges so that there will be no deleterious effect on the receiving stream.

5. The submission of a report and general plan for compliance with the Conclusions and Recommendations of the Lake Erie Conference (copy enclosed), with special reference to Sections 12, 13, and 16.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,

E. W. Arnold, M.D., Chairman

Water Pollution Control Board

Enc.-Permit 964.12

-Recom. & Concl.

Certified mail

cc: Mr. L. F. Birkel

cc: Health Commissioner

cc: District Office

* * * * *

Re: Cleveland
Industrial Wastes
(Mill Scale)

March 16, 1966

Republic Steel Corporation
Bolt and Nut Division
Cleveland, Ohio

Gentlemen:

Enclosed is renewal permit for the discharge of industrial wastes from your plant into "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires April 1, 1967. Renewal of this permit is contingent upon compliance with the following conditions:

1. The satisfactory maintenance and operation of facilities provided for the removal of mill scale and oil from the industrial waste discharges.
2. The submission to the Division of Engineering, Ohio Department of Health, at regular quarterly intervals, of reports to include information regarding flow volumes and pertinent analytical data on the industrial waste discharges.
3. The prompt reporting to the Division of Engineering of the occurrence and cause of any accidental or intermittent discharges of wastes which may have a deleterious effect on

the receiving stream.

4. The submission to the Division of Engineering of information pertaining to any plant expansion or process changes which may affect the character of the industrial waste discharges, together with a proposal for providing controls for such discharges so that there will be no deleterious effect on the receiving stream.

5. The submission of a report and plan for compliance with the Conclusions and Recommendations of the Lake Erie Conference (copy enclosed), with special reference to Section 16.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,

E. W. Arnold, M.D., Chairman

Water Pollution Control Board

Enc.-Permit 1153.12

-Recom. & Concl.

Certified mail

cc: Mr. L. F. Birkel

cc: Health Commissioner

cc: District Office

* * * * *

Re: Cleveland
Industrial Wastes
(Mill Scale) March 16, 1966

Republic Steel Corporation
Cleveland District
Cleveland, Ohio

Gentlemen:

Enclosed is renewal permit for the discharge of industrial wastes from your plant into "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires April 1, 1967. Renewal of this permit is contingent upon compliance with the following conditions:

1. The satisfactory maintenance and operation of facilities provided for the removal of mill scale and oil from the industrial waste discharges.
2. The submission to and approval by the Ohio Department of Health of detail plans of the proposed scale removal equipment for the 44-inch mill scale pit.
3. The submission to and approval by the Ohio Department of Health of detail plans of the

proposed oil skimming equipment for the 12-inch mill scale pit.

4. The installation of the facilities for reuse of soluble oil-bearing waters from the cold rolling operation in accordance with plans submitted for approval to the Ohio Department of Health.
5. The submission to the Division of Engineering, Ohio Department of Health, at regular quarterly intervals, of reports to include information regarding flow volumes and pertinent analytical data on the industrial waste discharges.
6. The prompt reporting to the Division of Engineering of the occurrence and cause of any accidental or intermittent discharges of wastes which may have a deleterious effect on the receiving stream.
7. The submission to the Division of Engineering of information pertaining to any plant expansion or process changes which may affect the character of the industrial waste discharges, together with a proposal for providing controls for such discharges so that there will be no deleterious effect on the

receiving stream.

8. The submission of a report and plan for compliance with the Conclusions and Recommendations of the Lake Erie Conference (copy enclosed), with special reference to Section 16.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,

E. W. Arnold, M.D., Chairman
Water Pollution Control Board

Enc.-Permit 1154.12
-Recom. & Concl.

Certified mail

cc: Mr. L. F. Birkel
cc: Health Commissioner
cc: District Office

* * * * *

Re: Cleveland
Ind. Wastes-Sew.
(Blast Furnace)

November 10, 1965

United States Steel Corporation
Tubular Operations

Central Furnaces

2650 Broadway Avenue

Cleveland, Ohio 44113

Attention Mr. Ralph Dice, Asst. Supt.

Gentlemen:

As a result of Board action November 9, 1965, enclosed is renewal permit for the discharge of industrial wastes and sanitary sewage from your Central Furnaces into "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires July 1, 1966. Renewal of this permit is contingent upon compliance with the following Orders:

1. The construction of the sewers and appurtenances necessary for the collection of the sanitary sewage of this plant and the discharge of the sewage into the Cleveland municipal system.
2. The satisfactory maintenance and operation of facilities provided for the clarification of blast furnace flue gas wash waters.
3. The submission to the Division of Engineering, Ohio Department of Health, at regular quarterly intervals, of reports to include

information regarding flow volumes and pertinent analytical data on the industrial waste discharges.

4. The prompt reporting to the Division of Engineering of the occurrence and cause of any accidental or intermittent discharges of wastes which may have a deleterious effect on the receiving stream.
5. The submission to the Division of Engineering of information pertaining to any plant expansion or process changes which may affect the character of the industrial waste discharges, together with a proposal for providing controls for such discharges so that there will be no deleterious effect on the receiving stream.
6. The submission of a report and general plan for compliance with the Conclusions and Recommendations of the Lake Erie Conference (copy enclosed), with special reference to Sections 12, 13, and 16.

Should you have any questions with respect to the above Orders, please notify us promptly.

Yours very truly,

E. W. Arnold, M.D., Chairman
Water Pollution Control Board

Enc.-Permit 1083.12
-Recom. & Concl.

Certified mail

cc: Mr. Herbert Dunsmore
cc: Mr. Frank C. Manak
2 cc: City of Cleveland
cc: Health Commissioner
cc: District Office

* * * * *

Re: Cleveland
Sewerage

January 14, 1966

United States Steel Corporation
Tubular Operations
Central Furnaces
2650 Broadway
Cleveland, Ohio 44113

Attention Mr. Ralph Dice, Asst. Supt.

Gentlemen:

Enclosed is renewal permit for the discharge of sanitary sewage from your Central Furnaces into "waters of the state" pursuant to the provisions of the Water Pollution

Control Act of Ohio.

You will note that this permit expires November 1, 1966. Renewal of this permit is contingent upon compliance with the following condition:

> The construction of the sewers and appurtenances necessary for the collection of the sanitary sewage of this plant and the discharge of the sewage into the Cleveland municipal system.

Should you have any questions with respect to the above condition, please notify us promptly.

Yours very truly,
E. W. Arnold, M. D., Chairman
Water Pollution Control Board

Enc.-Permit 687.13
Certified mail
cc: Mr. Herbert Dunsmore
cc: Mr. F. C Manak
2 cc: City of Cleveland
cc: Health Commissioner
cc: District Office

* * * * *

Re: Cuyahoga Heights
Industrial Wastes
(Acid Iron)

January 14, 1966

United States Steel Corporation
Cuyahoga Works
4300 East 49th Street
Cuyahoga Heights, Ohio
P.O. - Cleveland, Ohio

Gentlemen:

Enclosed is renewal permit for the discharge of industrial wastes from your establishment into "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires October 1, 1966. Renewal of this permit is contingent upon compliance with the following conditions:

1. The completion of the study which has been initiated for the determination of satisfactory treatment or disposal of the strong pickle liquors of this plant.
2. The submission to the Division of Engineering, Ohio Department of Health, of a proposal for the treatment or disposal of waste pickling acid and a schedule for the completion of such program, in conformance with commitments to the Water Pollution Control Board, June 8, 1965.

3. The satisfactory maintenance and operation of facilities provided for the controlled discharge of waste pickle liquor.
4. The submission to the Division of Engineering, at regular quarterly intervals, of reports to include information regarding flow volumes and pertinent analytical data on the industrial waste discharges.
5. The prompt reporting to the Division of Engineering of the occurrence and cause of any accidental or intermittent discharges of wastes which may have a deleterious effect on the receiving stream.
6. The submission to the Division of Engineering of information pertaining to any plant expansion or process changes which may affect the character of the industrial waste discharges, together with a proposal for providing controls for such discharges so that there will be no deleterious effect on the receiving stream.
7. The submission of a report and plan for compliance with the Conclusions and Recommendations of the Lake Erie Conference (copy enclosed), with special reference

to Section 16a.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,

E. W. Arnold, M.D., Chairman

Water Pollution Control Board

Enc.-Permit 1201.11

-Recom. & Concl.

Certified mail

cc: Mr. Herbert Dunsmore

cc: Mr. Frank C. Manak

2 cc: City of Cleveland

cc: Health Commissioner

cc: District Office

* * * * *

Re: Cuyahoga Heights
Industrial Wastes
(Mill Scale)

January 14, 1966

United States Steel Corporation
Cuyahoga Works
4300 East 49th Street
Cuyahoga Heights, Ohio
P.O. - Cleveland, Ohio

Gentlemen:

Enclosed is renewal permit for the discharge of industrial wastes from your plant into "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires October 1, 1966. Renewal of this permit is contingent upon compliance with the following conditions:

1. The satisfactory maintenance and operation of facilities provided for the removal of mill scale and oil from the industrial waste discharges.
2. The submission to the Division of Engineering, Ohio Department of Health, at regular quarterly intervals, of reports to include information regarding flow volumes and pertinent analytical data on the industrial waste discharges.
3. The prompt reporting to the Division of Engineering of the occurrence and cause of any accidental or intermittent discharges of wastes which may have a deleterious effect on the receiving stream.

4. The submission to the Division of Engineering of information pertaining to any plant expansion or process changes which may affect the character of the industrial waste discharges, together with a proposal for providing controls for such discharges so that there will be no deleterious effect on the receiving stream.

5. The submission of a report and plan for compliance with the Conclusions and Recommendations of the Lake Erie Conference (copy enclosed), with special reference to Section 16-b and -f.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,

E. W. Arnold, M.D., Chairman

Water Pollution Control Board

Enc.-Permit 1161.12

-Recom. & Concl.

Certified mail

cc: Mr. Herbert Dunsmore

cc: Mr. Frank C. Manak

2 cc: City of Cleveland

cc: Health Commissioner

cc: District Office

* * *

STATUS OF INDUSTRIAL WASTE TREATMENT FACILITIES
LAKE ERIE DRAINAGE AREA IN OHIO
GRAND RIVER BASIN

Entity	Type of Waste	Treatment Provided	Status	Additional Requirements	Schedule	Remarks
Calhio Chemicals, Inc.	Chem., Susp.& Dissolved solids	Neutraliz.settling controlled disch.	A			
Chardon Rubber Company Div.of Ball Bros.Co.,Inc.	Rubber Mfg. Oil, Solids	Major discharge to munic.sew.syst.	A			Minor disch.to strea under study.
Diamond Alkali Company	Chem., Susp.& Dissolved solids	Settling, neutraliz. reduct. - controlled discharge	I	Modernization of present facils + Oxidation reduct. potential controls. (Interim program)	Inter.prog. compl.by early 1967	Engrg studies underway -satis.resol.of problems by 1-1-69.
The Metal Craft Company	Metal Finish.	Controlled disch.	I	Det.plans for satis. treat.& disp.facils; construction	10-1-66 In op. 6-1-67	
A. E. Staley Mfg. Co.	Chemical Soy Bean Prod.	Recovery facils & Lagoon	I	Connection for disch.of IW's to public sewer	12-1-66	Munic.prog.UC in '67 New treat.facils in op. 5/66.
UNIROYAL United States Rubber Company Chemical Division Plant Area #4	Chemical	Chem.treat.& Lagoon	A			
United States Rubber Co. Chem. Div. - Plant Area #1	Chem., Susp.& Dissolved solids	Screening, settling lagoons	I	Submit proposal for compliance with Concl.& Recom.of L. Erie Conf.	12-15-66	See Brd Ltr 12-15-65
Welded Tubes Inc.	Sewage only	Septic Tank	A			To connect to munic. sew.syst., constr. in 1967.

Re: Lake County
Painesville Township
Ind.Wastes-Sew.

December 15, 1965

United States Rubber Company
Chemical Division
Plant Area No. 1
P. O. Box 460
Painesville, Ohio 44077

Attention Mr. J. M. Poynter, Factory Manager

Gentlemen:

As a result of Board action December 14, 1965, enclosed is renewal permit for the discharge of industrial wastes and sanitary sewage from your establishment into the "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires November 1, 1966. Renewal of this permit is contingent upon compliance with the following Orders:

1. The satisfactory maintenance and operation of facilities which have been provided for the treatment and disposal of the industrial wastes and sanitary wastes, respectively, of this plant.

2. The submission to the Division of Engineering, Ohio Department of Health, at regular monthly intervals, of reports to include information regarding flow volumes and pertinent analytical data on the industrial waste discharges.
3. The prompt reporting to the Division of Engineering of the occurrence and cause of any accidental or intermittent discharges of wastes which may have a deleterious effect on the receiving stream.
4. The submission of a proposal for compliance with the Conclusions and Recommendations of the Lake Erie Conference (copy enclosed), with special reference to Section 16.

Should you have any questions with respect to the above Orders, please notify us promptly.

Yours very truly,
E. W. Arnold, M. D., Chairman
Water Pollution Control Board

Enc.-Permit 736.16
-Recom. & Concl.

Certified mail

cc: Health Commissioner

cc: District Office

STATUS OF INDUSTRIAL WASTE TREATMENT FACILITIES
LAKE ERIE DRAINAGE AREA IN OHIO
HURON RIVER BASIN

Entity	Type of Waste	Treatment Provided	Status	Additional Requirements	Schedule	Remarks
The Baltimore & Ohio Railroad Co.	Railroad Oil	Oil Separators	I	Engr.report for effective removal of oil wastes.	7-1-66	
E. I. duPont deNemours & Co., Inc.	Chemical,Acids Susp.Solids	Settl.lagoon, in-plant controls	A			
Johns-Manville Products Corp.	Paper Mill	Complete containment & recirculation of wastes (lagoons)	A			

STATUS OF INDUSTRIAL WASTE TREATMENT FACILITIES
LAKE ERIE DRAINAGE AREA IN OHIO
MAUMEE RIVER BASIN

Entity	Type of Waste	Treatment Provided	Status	Additional Requirements	Schedule	Remarks
Allied Chemical Corp. Plastics Division Glendale Plant	Organic Plastics	Holding lagoon-wastes to Toledo sewer system.	A			
Bauer Canneries, Inc.	Organic Tomato Cannery	Holding lagoon	A			
Beatrice Foods Co.	Organic Milk Processing	Activated sludge, reuse of cooling water, land spray disp. of sludge and whey	A			
Bohrer & Moore Packing Co., Inc.	Organic Meat Packing	Land spray disposal	A			
Buckeye Sugars, Inc.	Organic Beet Sugar	Holding lagoons, reuse of condenser water	A			
Buckeye Sugars, Inc.	Organic Tomato Cannery	Holding lagoons	A			
Bundy Foods, Inc.	Organic Tomato Cannery	Screening, to swale area	A			

STATUS OF INDUSTRIAL WASTE TREATMENT FACILITIES
LAKE ERIE DRAINAGE AREA IN OHIO
MAUMEE RIVER BASIN - Contd.

Entity	Type of Waste	Treatment Provided	Status	Additional Requirements	Schedule	Remarks
Campbell Soup Co.	Organic Soup Cannery Tomato Cannery	Trickling filters for soup production, land spray for tomato oper's	A			
Central Foundry Div. GMC, Defiance Plant	Steel Foundry	Settling lagoons	A			
Chase Brass & Copper Company, Inc.	Metal Finish.	Chemical treatment and lagoon	A			
Davison Chemical Div., W. R. Grace & Co.	Chemical Fertilizer	Lagoons, most of flow to Findlay STP	A			
Defiance Fertilizer Co.	Organic Rendering Co.	Grease separation, open sand filters	A			
Diegel Canning Co.	Organic Tomato Cannery	Broad land disposal	A			
Donovan Steel Pickling Co., Div.of Donovan Wire & Iron Co.	Steel Acid-Iron	Lagoon neutralization	A			Plans to pretreat & make tributary to Toledo
Edgerton Metal Products, Inc.	Inorganic Metal Finishing	Cyanide oxidation	I	Det.plans for treat.facils of chrome wastes	7-1-66 Constr.of treat.facils by 1/67	See Brd Ltr 10-28-65
Ex-Cell-O Corp.	Inorganic Metal Finishing Oil	Cyanide oxidation chrome reduction & ppt.,oils to lagoon	A			

STATUS OF INDUSTRIAL WASTE TREATMENT FACILITIES
LAKE ERIE DRAINAGE AREA IN OHIO
MAUMEE RIVER BASIN - Contd.

Entity	Type of Waste	Treatment Provided	Status	Additional Requirements	Schedule	Remarks
Ford Motor Co. Lima Engine Plt.	Emulsified Oil Wastes	Chem.Treat.& oil separation, lagoon	A			See Brd Ltr 2-15-66
Foster Canning, Inc.	Organic Tomato Cannery	Land spray disposal	A			
The Fremont Kraut Co.	Organic Kraut Production	Lagoon	A			
The Goodyear Tire & Rubber Co.	Metal Finishing, Rubber Parts	Chrome reduction in-plant controls part to city sewers	A			See Brd Ltr 10-28-65
Gulf Oil Corporation Toledo Refinery	Oil Refinery	Oil separators	A			
Hayes Industries, Inc. Decorative Div.	Inorganic, Metal Plating	Acid neutraliz. settling	I	Constr.of imprvts to exist.treat.& disp.facils	UC - Compl. 9/66	New applic.ref.to Div 12-22-65--Det.plans apprvd for imprvts
Interlake Steel Corp.	Steel Blast Furnace	Clarification	A			
Johns-Manville Fiber Glass, Inc.-Plant #3	Phenolic	Reuse syst. chem.treatment	I	Constr.of imprvts to treat.facils	9-1-66	Det.plans being revised for greater reuse of wastes
Johns-Manville Fiber Glass, Inc.	Organic, Phenolic	Swale area, soil infilt.	I	Constr.of treat.& disp.facils	9-1-66	Det.plans recd for apprvl;construction expected to start 7/66

STATUS OF INDUSTRIAL WASTE TREATMENT FACILITIES
LAKE ERIE DRAINAGE AREA IN OHIO
MAUMEE RIVER BASIN - Contd.

Entity	Type of Waste	Treatment Provided	Status	Additional Requirements	Schedule	Remarks
Libbey-Owens-Ford Glass Co., Rossford and Thermopane Plts.	Settleable Solids, Soluble Oils	Lagoons,emulsion treatment facils	A			
Libby, McNeill & Libby	Organic Tomato Processing	Land spray disposal	A			
National Refining Co. Div. of Ashland Oil & Refining Co.	Oil Refinery	API separator	I	Imprvts to treat. facilities (air flotation)	9-1-66	Ref.new applic.to Div Develop plans for imprvts to existing facilities
New Bavaria Canning Company, Inc.	Organic Tomato Cannery	Land spray disposal	A			
Ohio Decorative Products, Inc.	Inorganic, Metal Finishing	Cyanide oxidation Chrome hauled away	A			
Pandora Canning Co.	Organic, Tomato Cannery	Holding lagoon	A			
Pepsi-Cola Bottling Co.	Food Processing (Misc.)	Aeration basin	I	Compl.studies & submit report re necess.treat.& disp.facils	7-1-66	See Brd Ltr 4-26-66
Plain View Farm	Organic Milk Processing	Land spray disposal	A			
Pride of Lima Provision Co.	Organic Meat Processing	Land spray disposal	A			
Republic Creosoting Co., Div.of Reilly Tar & Chem. Corp.	Phenolic Wood Preserving	Separator and straw filters	A			

STATUS OF INDUSTRIAL WASTE TREATMENT FACILITIES
LAKE ERIE DRAINAGE AREA IN OHIO
MAUMEE RIVER BASIN - Contd.

Entity	Type of Waste	Treatment Provided	Status	Additional Requirements	Schedule	Remarks
Rusco Div. Rusco Industries,Inc.	Inorganic Metal Finishing	Acid neutraliz. settling	A			
S-K Wayne Tool Co.	Inorganic Metal Finishing	In-plant controls, monitored disch.	I	Det.plans for sew. treat.& ind.waste treat.plants	12-15-66 In op.6-15-67	
Sharp Canning, Inc. (Ohio City)	Organic Tomato Cannery	Land spray disposal	A			
Sharp Canning, Inc. (Rockford)	Organic Tomato Cannery	Land spray Disposal	A			
Sohio Chemical Co.	Organics	Lagoon	I	In-plant controls & studies to reduce critical constit.	1-1-67	See Brd Ltr 3-18-66
Sohio Petroleum Co.	Organics Petro chemicals	Chemical, lagoon & incineration	I	In-plant controls & studies to reduce critical increments of wastes	8-1-66	See Brd Ltr 10-28-65
The Standard Oil Co.	Oil Refinery	API separator, air flotation facils	I	Corrective measures for reduction of phenol	1-1-67	Imprvts compl.7/66 See Brd Ltr 3-18-66
Stokely-Van Camp,Inc.	Organic Tomato Processing	Holding lagoon	A			
Sun Oil Company Marine Terminal	Oil Loss	Separators	A			
Sun Oil Company Wharf	Oil Loss	Separators	A			

STATUS OF INDUSTRIAL WASTE TREATMENT FACILITIES
LAKE ERIE DRAINAGE AREA IN OHIO
MAUMEE RIVER BASIN - Contd.

Entity	Type of Waste	Treatment Provided	Status	Additional Requirements	Schedule	Remarks
Toledo Edison Co. Acme Station	Power Plant	Lagoons	A			
Toledo Edison Co. Water St. Station	Power Plant	Lagoons	A			
Walter & Sons, Inc.	Organic	Septic tank, sand filter	I	Det.plans for imprvts to exist. treat.& disposal facilities	Overdue	
The Weatherhead Co. Ohio Div.	Inorganic Metal Plating	Chemical, Cyanide oxid., sec.treat.of sewage	I	Report & plan for imprvts to exist. treat.& disposal facilities	7-1-66 Compl.by 1-1-67	See Brd Ltr 12-17-65
The Weston Paper & Mfg. Company Auglaize Div.	Organic Paper Mill	Land spray disp., settling infiltration lagoon	A			
G. A. Wintzer & Son Company	Organic Rendering	Activated Sludge	A			

Re: Edgerton

Industrial Wastes October 28, 1965

Edgerton Metal Products, Inc.
East Bement Street
Edgerton, Ohio 43517

Gentlemen:

Enclosed is renewal permit for the discharge of industrial wastes from your establishment into "waters of the state" pursuant to the provisions of the Water Pollution Control Act of Ohio.

You will note that this permit expires July 1, 1966. Renewal of this permit is contingent upon compliance with the following conditions:

1. The satisfactory maintenance and operation of facilities provided for the treatment and disposal of cyanide-bearing wastes incident to the plating operations of this plant.
2. The submission to the Division of Engineering, Ohio Department of Health, of a plan for (a) the treatment or (b) the collection, hauling away and providing satisfactory disposal of chrome-bearing wastes incident to the plating operations of this plant.
3. The submission to the Division of Engineering, at regular monthly intervals, of reports to

include waste flows and the concentration of critical constituents of the discharged wastes.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,
E. W. Arnold, M. D., Chairman
Water Pollution Control Board

Enc.-Permit 1416.10
Certified mail
cc: Health Commissioner
cc: District Office

* * * * * * *

Re: Allen County
Bath Township
Industrial Wastes

February 15, 1966

Ford Motor Company
Lima Engine Plant
Lima, Ohio

Gentlemen:

Enclosed is renewal permit for the discharge of industrial wastes from your plant into "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires October 1, 1966. Renewal of this permit is contingent upon compliance with the following conditions:

1. The satisfactory maintenance and operation of facilities which have been provided for the treatment and disposal of industrial wastes incident to the manufacturing processes of this plant; submitting to the Division of Engineering, Ohio Department of Health, at regular monthly intervals, reports to include information and analytical data pertinent to the operation and to the performance of these facilities.
2. The prompt reporting to the Division of Engineering of the occurrence and cause of any accidental or intermittent discharges of wastes which may have a deleterious effect on the receiving stream.
3. The submission to the Division of Engineering of information with respect to plant expansions and/or changes in processes, contemplated within the interim of this permit, which will significantly affect the disposal of industrial

wastes, together with proposal of adjustments and/or improvements to these facilities consistent with such plant expansions and/or changes in processes.

4. The submission prior to April 15, 1966, of a report setting forth proposal for compliance with the Recommendations and Conclusions of the Lake Erie Conference, a copy of which was mailed to you December 29, 1965.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,
E. W. Arnold, M. D., Chairman
Water Pollution Control Board

Enc.-Permit 1399.8
Certified mail
cc: Mr. C. J. Pellrath
cc: Health Commissioner
cc: District Offic

* * * * * * *

Re: Saint Marys
Industrial Wastes October 28, 1965

The Goodyear Tire & Rubber Company
Saint Marys Plant
South Wayne Street
Saint Marys, Ohio 45885

Gentlemen:

Enclosed is renewal permit for the discharge of industrial wastes from your establishment into "waters of the state" pursuant to the provisions of the Water Pollution Control Act of Ohio.

You will note that this permit expires October 1, 1966. Renewal of this permit is contingent upon compliance with the following conditions:

1. The satisfactory maintenance and operation of facilities provided thus far for the treatment and disposal of the industrial wastes of this plant; submitting to the Division of Engineering, Ohio Department of Health, at regular monthly intervals, reports to include information and analytical data pertinent to the operation of these facilities.
2. The submission of a report and general plan for compliance with the Conclusions and Recommendations of the Lake Erie Conference (copy enclosed) with special reference to Sections 12, 13, 16, 17, and 18.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,

E. W. Arnold, M. D., Chairman

Water Pollution Control Board

Enc.-Permit 795.14

-Recom. & Concl.

Certified mail

cc: Mr. F. A. Price

cc: Health Commissioner

cc: District Office

* * * * * * *

Re: Auglaize County

Duchouquet Twp.

Industrial Wastes

April 26, 1966

Pepsi-Cola Bottling Company

R. R. 6

Wapakoneta, Ohio 45895

Gentlemen:

Enclosed is renewal permit for the discharge of industrial wastes from your establishment into "waters of the state" pursuant to the provisions of the Water Pollution Control Act of Ohio.

You will note that this permit expires July 1, 1966. Renewal of this permit is contingent upon compliance with the following conditions:

1. The completion of studies now under way as to the effectiveness of the aeration unit with controlled flow and the effectiveness of the experimental lagoon for the treatment of alkaline wastewaters.
2. The submission to the Division of Engineering, Ohio Department of Health, of a report on these studies and a proposal and time schedule for corrective measures which will provide satisfactory treatment.
3. The submission to the Division of Engineering, at regular monthly intervals, of reports to include information regarding flow volumes and pertinent analytical data on the industrial waste discharges.
4. The prompt reporting to the Division of Engineering of the occurrence and cause of any accidental or intermittent discharges of wastes which may have a deleterious effect on the receiving stream.
5. The submission to the Division of Engineering

of information pertaining to any plant expansion or process changes which may affect the character of the industrial waste discharges, together with a proposal for providing controls for such discharges so that there will be no deleterious effect on the receiving stream.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,

E. W. Arnold, M.D., Chairman
Water Pollution Control Board

Enc.-Permit 1950.1

Certified mail

cc: Health Commissioner

cc: District Office

* * * * *

Re: Allen County
Shawnee Township
Ind. Wastes-Sew.

March 18, 1966

Sohio Chemical Company
P.O. Box 628
Lima, Ohio 45801

Attention Mr. J. L. Locker, General Superintendent

Gentlemen:

Enclosed is renewal permit for the discharge of industrial wastes and sanitary sewage from your establishment into "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires January 1, 1967. Renewal of this permit is contingent upon compliance with the following conditions:

1. The satisfactory maintenance and operation of facilities which have been installed for the treatment of the sanitary sewage of this plant; submitting to the Division of Engineering, Ohio Department of Health, at regular monthly intervals, reports to include information and analytical data pertinent to the operation and to the performance of these facilities.
2. The satisfactory maintenance and operation of facilities which have been provided for the collection, treatment, and controlled disposal of the industrial wastes and process waters incident to the manufacturing processes of this plant so as to maintain the current

water quality objectives in the Auglaize River, and to avoid the occurrence of nuisance conditions in the Ottawa River.

3. The continued prosecution of engineering studies directed toward accomplishment of a reduction of the critical constituents in the wastes effluent, together with the installation of improvements to treatment facilities or procedures developed by these studies.
4. The submission to the Division of Engineering, at regular monthly intervals, of reports to include information and analytical data pertinent to the definition of the volumes and characteristics of the industrial wastes effluents and for the evaluation of the effects of the discharges on the receiving streams (Ottawa and Auglaize Rivers).
5. The prompt reporting to the Division of Engineering of the occurrence and cause of any accidental or intermittent discharges of wastes which may have a deleterious effect on the receiving stream.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,

E. W. Arnold, M.D., Chairman

Water Pollution Control Board

Enc.-Permit 1349.9

Certified mail

cc: Health Commissioner

cc: District Office

* * * * *

Re: Allen County
Shawnee Township
Industrial Wastes

October 28, 1965

Sohio Petroleum Company
P.O. Box 628
Lima, Ohio

Attention Mr. J. L. Locker

Gentlemen:

Enclosed is renewal permit for the discharge of industrial wastes from your establishment into "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires August 1, 1966. Renewal of this permit is contingent upon compliance with the following conditions:

1. The satisfactory maintenance and operation of existing facilities for elimination of certain strong increments of industrial wastes by evaporation and incineration.
2. The installation of additional in-plant controls for the reduction of nitrogen-bearing compounds to a level that unsatisfactory conditions, attributable to the effluent, will not result at downstream locations.
3. The continuation of studies to determine means to further reduce all critical constituents to a level acceptable for discharge to the Ottawa River.
4. The submission to the Ohio Department of Health of a report on the findings of this study with recommendations for corrective measures.
5. The submission to the Division of Engineering, Ohio Department of Health, at regular monthly intervals, of reports to include information and analytical data pertinent to the definition of the characteristics of the industrial waste effluents and to the evaluation of the

polluting properties of these wastes as as represented by critical constituents.

6. The prompt reporting of the occurrence and cause of accidental or intermittent discharges of any wastes which by reason of their volume or characteristics, or both, may have a deleterious effect on the stream from the standpoint of downstream legitimate uses.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,

E. W. Arnold, M.D., Chairman

Water Pollution Control Board

Enc.-Permit 1559.5

Certified mail

cc: Health Commissioner

cc: District Office

* * * * *

Re: Allen County

Shawnee Township

Ind. Wastes-Sew.

March 18, 1966

The Standard Oil Company

Lima Refinery

1150 South Metcalf Street
Lima, Ohio 45804
Attention Mr. K. A. McDaniel, Manager

Gentlemen:

Enclosed is renewal permit for the discharge of industrial wastes and sanitary sewage from your establishment into the "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires January 1, 1967. Renewal of this permit is contingent upon compliance with the following conditions:

1. The satisfactory maintenance and operation of facilities which have been provided for the treatment and disposal of the sanitary sewage of this plant; submitting to the Division of Engineering, Ohio Department of Health, at regular monthly intervals, reports setting forth information and analytical data pertinent to the operation and to the performance of these facilities.
2. The satisfactory maintenance and operation of the oil separator and air flotation facilities which have been provided for the treatment of the industrial wastes incident

to oil-refining processes; submitting to the Division of Engineering, at regular monthly intervals, reports to include information and analytical data pertinent to the operation and to the performance of these facilities.

3. The prompt reporting to the Division of Engineering of the occurrence and cause of any accidental or intermittent discharges of wastes which may have a deleterious effect on the receiving stream.
4. The prompt institution of measures to control the periodic high concentration of phenol in the plant discharge.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,

E. W. Arnold, M.D., Chairman

Water Pollution Control Board

Enc.-Permit 887.13

Certified mail

cc: Health Commissioner

cc: District Office

* * * * *

Re: Antwerp

Ind. Wastes-Sew. December 17, 1965

The Weatherhead Company
Antwerp, Ohio 45813

Gentlemen:

Enclosed is renewal permit for the discharge of industrial wastes and sanitary sewage from your establishment into the "waters of the state" pursuant to the provisions of the Water Pollution Control Act of Ohio.

You will note that this permit expires July 1, 1966. Renewal of this permit is contingent upon compliance with the following conditions:

1. The satisfactory maintenance and operation of facilities provided for the treatment and disposal of the sanitary sewage and industrial wastes of this plant.
2. The submission to the Division of Engineering, Ohio Department of Health, at regular monthly intervals, of reports to include information and anlytical data pertinent to the operation and performance of the sanitary sewage and industrial wastes treatment facilities.
3. The submission of a report and plan for compliance with the Conclusions and Recommendations of the Lake Erie Conference

(copy enclosed), with special reference to Sections 12, 13, 16, 17 and 18.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,

E. W. Arnold, M.D., Chairman

Water Pollution Control Board

Enc.-Permit 682.11

-Recom. & Concl.

Certified mail

cc: Mr. F. E. Stearns, Asst. Secy.

cc: Health Commissioner

cc: District Office

* * * * *

STATUS OF INDUSTRIAL WASTE TREATMENT FACILITIES
LAKE ERIE DRAINAGE AREA IN OHIO
OTTAWA RIVER (TENMILE CRK) BASIN

Entity	Type of Waste	Treatment Provided	Status	Additional Requirements	Schedule	Remarks
Dana Corporation Toledo Division	Oil Treatment (Unclass.)	Chemical treatment & reuse	I	Corrective meas. for reduction of oils	12-1-66	
F. S. Royster Guano Co.	Chemical	Neutralization lagoons	A			

STATUS OF INDUSTRIAL WASTE TREATMENT FACILITIES
LAKE ERIE DRAINAGE AREA IN OHIO
PORTAGE RIVER BASIN

Entity	Type of Waste	Treatment Provided	Status	Additional Requirements	Schedule	Remarks
Brush Beryllium Co.	Chemical Dissolved Solids	Clarification Controlled discharge	A			
Foster Duck Farm, Inc.	Organic Poultry Proc.	Land spray and controlled duck pasture	A			
Gibsonburg Canning Co.	Tomato Cannery	Land spray	A			
The Great Atlantic & Pacific Tea Co., Inc. Ann Page Division	Tomato Cannery	Lagoons	A			
Pemberville Division Hirzel Canning Co.	Tomato Cannery	Land spray	A			
The Seneca Wire & Mfg. Co.	Steel - Acid Iron	Neutralization, settling controlled discharge	I	Hire engr.for planning imprvts to exist.treat. facilities	1-1-67	
Swift & Company	Soybean Mill Chemical	Grease separation	I	Report & schedule for constr.sew. connect.for disch. to city sew.syst.	6-1-66	Connect.compl. by 6/67
Wood County Canning Company, Inc.	Tomato Cannery	Land spray	A			

STATUS OF INDUSTRIAL WASTE TREATMENT FACILITIES
LAKE ERIE DRAINAGE AREA IN OHIO
ROCKY RIVER BASIN

Entity	Type of Waste	Treatment Provided	Status	Additional Requirements	Schedule	Remarks
Astoria Plating Corporation	Metal Finish.	Cyanide oxidation chrome reduction	A			
General Motors Corporation Allison Division Cleveland Tank Plant	Metal Finisn.	Cyanide oxidation chrome reduction	A			

STATUS OF INDUSTRIAL WASTE TREATMENT FACILITIES
LAKE ERIE DRAINAGE AREA IN OHIO
SANDUSKY RIVER BASIN

Entity	Type of Waste	Treatment Provided	Status	Additional Requirements	Schedule	Remarks
Corfman Gravel Co.	Sand & Gravel Silt	Settling	A			
H. J. Heinz Co.	Tomato Cannery	Land spray	A			
Hewitt-Robins, Inc.	Rubber-Organic	Aerated lagoon	A			
Terry Little Oil Refinery	Oils (Unclass.)	Acid neutraliz. & lagoons	A			
Northern Ohio Sugar Co.	Beet Sugar	Holding lagoons controlled discharge	A			
The Pennsylvania Railroad Co.	Railroad Oil	Oil separators	A			
The Pioneer Rubber Co. Plant No. 2	Rubber-Alcohol	None	I	Complete studies; subm.proposal & time schedule for constr.of satis. treat.& disp.facils	Report & schedule 7-1-66 Constr. 1967	

STATUS OF INDUSTRIAL WASTE TREATMENT FACILITIES
TRIBUTARY TO LAKE ERIE

Entity	Type of Waste	Treatment Provided	Status	Additional Requirements	Schedule	Remarks
Bechtel-McLaughlin,Inc.	Metal Finishing	Cyanide oxidation	I	Det.plans for necess.imprvts to treat.& disp. facilities	7-1-66 In op. 12-1-66	See Brd Ltr 12-15-65
Detrex Chemical Ind., Inc., Chlorine-Alkali Plant	Chemical Inorganic	Neutralization Controlled discharge	A			
Doehler-Jarvis Div. National Lead Co. Toledo Plant #2	Metal Finishing	In-plant controls & recovery	I	Det.plans for imprvts to exist. treat.& disp.facils	2-1-67 Compl.12/67	See Brd Ltr 3-28-66
Ford Motor Company Lorain Assembly Plant	Metal Finishing	Chem.treatment & lagoons	A			
Ford Motor Company Sandusky Hardware Plt	Metal Finishing	Cyanide oxid. chrome reduction lagoons	A			
General Electric Co. Bellevue Lamp Plant #242	Sewage only	Septic tank	I	Facils for disch. to new city sewerage system	Constr.compl. in 1968	
Hirzel Canning Co.	Tomato-Beet Cannery	Land Spray	I	Elimin.of storm water from disp. system	Prior to 8-1-66	
The Lake Erie Canning Company	Cannery Tomato, Kraut, Cherry	Lagoon	A			

STATUS OF INDUSTRIAL WASTE TREATMENT FACILITIES
TRIBUTARY TO LAKE ERIE
Contd.

Entity	Type of Waste	Treatment Provided	Status	Additional Requirements	Schedule	Remarks
Libbey-Owens-Ford Glass Co.-East Toledo Plant	Glass Mfg.	Lagoons	A			
Natl.Aeron.& Space Admin. Plum Brook Station	Research	In-plant control	A			
Natl.Aeron.& Space Admin. Plum Brook Station (Research Center)	Sewage only	Complete	A			
New Departure-Hyatt Bearings Div.-GMC	Metal Finishing	Chrome reduction & settling	A			
Rockwell-Standard Corp. Brake Division	Metal Finishing	Cyanide oxidation	A			
Silver Fleece, Inc.	Kraut Cannery	Lagoon - controlled discharge	A			
The Standard Oil Co. Toledo Refinery	Oils	Oil separators lagoons	A			
Stokely-Van Camp, Inc.	Tomato Cannery	Land spray	A			
Sun Oil Company Toledo Refinery	Oils	Oil separators lagoons biological treat.	A			
The Toledo Edison Co. Bay Shore Station	Suspended Solids	Lagoons	A	Feasib.study for treat.of equip. wash water before disch.to lagoons (periodic)	2-1-67	

STATUS OF INDUSTRIAL WASTE TREATMENT FACILITIES
TRIBUTARY TO LAKE ERIE
Contd.

Entity	Type of Waste	Treatment Provided	Status	Additional Requirements	Schedule	Remarks
Toledo Scale, Div.of Toledo Scale Corp.	Metal Finishing	Settling and controlled discharge	I	Study & provide connection for disch.of pretreat. wastes to Toledo sew.syst.	5-1-67	
True Temper Corp.	Metal Finishing	Chrome reduction, cyanide oxidation	I	Installation of addtnl treat. facilities	Start constr. 9/66	Compreh.plans for treat.& disp.facils imprvts - approved 5/66
True Temper Corp. Saybrook Plant	Metal Finishing Sewage	Aerobic digestion	A			
Union Carbide Corp. Linde Division Welding Materials Plt	Steel-Acid Iron	Lagoons	A			
Whirlpool Corporation Clyde Division	Metal Finishing	Cyanide oxid., settling	A			

Re: Erie County

Perkins Township

Industrial Wastes December 15, 1965

Bechtel-McLaughlin, Inc.
P. O. Box 948
Sandusky, Ohio 44870

Gentlemen:

As a result of Board Action December 14, 1965, enclosed is renewal permit for the discharge of industrial wastes from your establishment into "waters of the state" pursuant to the provisions of the Water Pollution Control Act of Ohio.

You will note that this permit expires July 1, 1966. Renewal of this permit is contingent upon compliance with the following Orders:

1. The satisfactory maintenance and operation of the facilities provided thus far for treatment and disposal of cyanide-bearing increments of the industrial wastes of this plant.
2. The elimination of all discharges of strong acids, chromium-bearing wastes, and other metal-bearing waste increments to waters of the state prior to the expiration date of this permit.

3. The submission to the Division of Engineering, at regular monthly intervals, of reports to include information regarding flow volumes and pertinent analytical data on the industrial waste discharges.
4. The prompt reporting to the Division of Engineering of the occurrence and cause of any accidental or intermittent discharges of wastes which may have a deleterious effect on the receiving stream.
5. The submission to the Division of Engineering of information pertaining to any plant expansion or process changes which may affect the character of the industrial waste discharges, together with a proposal for providing controls for such discharges so that there will be no deleterious effect on the receiving stream.
6. The submission of a proposal for compliance with the Conclusions and Recommendations of the Lake Erie Conference (copy enclosed), with special reference to Sections 12, 13, 16, 17, and 18.

Should you have any questions with respect to the above Orders, please notify us promptly.

Yours very truly,

E. W. Arnold, M.D., Chairman

Water Pollution Control Board

Enc.-Permit 944.15

-Recom. & Concl.

Certified mail

cc: Health Commissioner

cc: District Office

* * * * *

Re: Lucas County

Washington Township

Industrial Wastes

March 28, 1966

Doehler-Jarvis Division

National Lead Company

1945 Broad Avenue

Toledo, Ohio 43601

Gentlemen:

Enclosed is renewal permit for the discharge of industrial wastes from your Toledo Plant No. 2 into the "waters of the state" pursuant to the provisions of the Water Pollution Control Act of Ohio.

You will note that this permit expires February 1, 1967. Renewal of this permit is contingent upon compliance with the following conditions:

1. The satisfactory maintenance and operation of facilities provided thus far for the reclamation and controlled discharge of industrial wastes incident to the manufacturing processes of this plant; submitting to the Division of Engineering, Ohio Department of Health, at regular monthly intervals, reports to include information and analytical data pertinent to the definition of the industrial wastes as discharged to the receiving stream.
2. The prompt reporting to the Division of Engineering of the occurrence and cause of any accidental or intermittent discharges of wastes which may have a deleterious effect on the receiving stream.
3. The submission to the Division of Engineering of information with respect to proposed plant expansion or changes in processes together with a proposal with respect to adjustments or improvements of wastes treatment facilities consistent with such expansions or changes in processes.
4. The submission prior to April 15, 1966, of

a proposal for complying with the Recommendations and Conclusions of the Lake Erie Conference, as requested in a letter dated December 29, 1965, giving particular emphasis to Sections 12, 13, 16, 17, and 18.

5. The submission to and approval by the Ohio Department of Health of detail plans of proposed facilities for the satisfactory treatment of the industrial wastes of this plant in accordance with Section 16 referred to above.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,
E. W. Arnold, M.D., Chairman
Water Pollution Control Board

Enc.-Permit 978.11
Certified mail
cc: Div. of Air & Water Poll. Control
cc: Mr. H. H. Jacobson
cc: Health Commissioner
cc: District Office

* * * *

STATUS OF INDUSTRIAL WASTE TREATMENT FACILITIES
DIRECT TO LAKE ERIE

Entity	Type of Waste	Treatment Provided	Status	Additional Requirements	Schedule	Remarks
Aluminum & Magnesium, Inc.	Chemical	Lagoon	A			
The Cleveland Electric Illuminating Company						
Ashtabula Plant	Susp.Solids	Lagoons	A			
Avon Plant	Susp.Solids	Lagoons	A			
Eastlake Gen. Sta.	Susp.Solids	Lagoons	A			
IRC Fibers Division Midland-Ross Corp.	Susp.Solids Zinc, Organics	Lagoons	I	Det.plans for imprvts to exist. treat.& disposal facils;det.plans for secondary treat. imprvts to exist. sew.treat.plant	2-1-67 In op. 2-1-68	See Brd Ltr 6-8-66
The Lubrizol Corp.	Chemical	Chemical & Biological Oil Removal	I	Studies & proposal to reduce critical increments of wastes;det.plans of facilities	4-1-67 Facils in op.12-1-67	See Brd Ltr 6-8-66
Ohio Edison Company Edgewater Plant	Susp.Solids	Lagoons	A			
TRW, Inc.	Metal Finishing	Chemical & settling tanks	I	Compreh.plan for collect.& treat. of ind.wastes	7-1-66 In op.1-1-68	
Union Carbide Corp. Metals Division	Steel-Misc. Acids Susp.Solids	Neutralization & Clarification	A			

STATUS OF INDUSTRIAL WASTE TREATMENT FACILITIES
DIRECT TO LAKE ERIE
Contd.

Entity	Type of Waste	Treatment Provided	Status	Additional Requirements	Schedule	Remarks
United States Gypsum Co.	Paper Mill	Clarification & in-plant reuse	A			
United States Rubber Co.	Chemical	Temporary disposal	I	To make connect. for disp.of wastes to Erie Depot wastewater treatment works	UC - Compl. by 7-15-66	See Brd Ltr 4-18-66 re permanent treat. facilities

Re: Lake County
Painesville Township
Ind. Wastes-Sew. June 8, 1966

IRC Fibers Division
Midland-Ross Corporation
P. O. Box 580
Painesville, Ohio 44077

Gentlemen:

Enclosed is renewal permit for the discharge of industrial wastes and sanitary sewage from your establishment into the "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires February 1, 1967. Renewal of this permit is contingent upon compliance with the following conditions:

1. The submission to and approval by the Ohio Department of Health of detail plans of terminal facilities for the neutralization of acids and the precipitation of zinc and related settleable solids from the increments of the industrial wastes of this plant designated as "C2" and "H3", together with a schedule of construction of these

facilities.

2. The submission to and approval by the Ohio Department of Health of detail plans of facilities for secondary treatment of the sanitary sewage of this plant together with a schedule of construction of these facilities.
3. The satisfactory maintenance and operation of facilities provided for the clarification of the ash-bearing wastes of this plant; submitting to the Division of Engineering, Ohio Department of Health, at regular monthly intervals, reports to include information and analytical data pertinent to the performance of these facilities and pertinent to the definition of critical waste loads discharged to waters of the state.
4. The satisfactory maintenance and operation of the facilities provided thus far for the treatment and disposal of sanitary sewage of this plant; submitting to the Division of Engineering, at regular monthly intervals, reports to include information and analytical data pertinent to the operation and performance of these facilities.

5. The continued submission to the Division of Engineering, at regular monthly intervals, of information and analytical data pertinent to the definition of the critical industrial waste loads of the significant increments of industrial wastes of this plant discharged to waters of the state.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,
E. W. Arnold, M.D., Chairman
Water Pollution Control Board

Enc.-Permit 747.14
Certified mail
cc: Health Commissioner
cc: District Office

* * * * *

Re: Wickliffe
Industrial Wastes

June 8, 1966

The Lubrizol Corporation
Box 3057, Euclid Station
Cleveland, Ohio 44117

Gentlemen:

Enclosed is renewal permit for the discharge of industrial wastes from your establishment into "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires April 1, 1967. Renewal of this permit is contingent upon compliance with the following conditions:

1. The satisfactory maintenance and operation of industrial wastes treatment facilities which have been provided at this plant.
2. The continued submission to the Division of Engineering, Ohio Department of Health, at regular monthly intervals, of reports to include information and analytical data pertinent to the operation and to the performance of the industrial wastes treatment facilities.
3. The continuation of the studies which have been initiated for the determination and segregation of the critical increment of the industrial wastes discharged; submitting to the Ohio Department of Health a report setting forth the findings and proposal for the satisfactory treatment and disposal,

reduction, or elimination of the critical constituents of this waste.

4. In the event additional wastes treatment facilities are proposed to comply with the provisions of Condition 3 (above), the submission to and approval by the Ohio Department of Health of detail plans of the proposed treatment devices or facilities.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,
E. W. Arnold, M.D., Chairman
Water Pollution Control Board

Enc.-Permit 1182.12
Certified mail
cc: Health Commissioner
cc: District Office

* * * * *

Re: Ottawa County
Erie Township
Industrial Wastes March 18, 1966

United States Rubber Company
Erie Army Depot

P.O. Box 488
Port Clinton, Ohio 43452
Attention Mr. Frederick E. Weber, Factory Manager

Gentlemen:

As a result of Board action March 8, 1966, enclosed is permit for the discharge of industrial wastes from your establishment into the "waters of the state" pursuant to the provisions of the Water Pollution Control Act and to the statement of policy of the Board dated February 24, 1953.

You will note that this permit expires December 1, 1966. Renewal of this permit is contingent upon compliance with the following conditions:

1. The provision and operation of temporary expedients for control of industrial wastes characteristics as outlined in the letter and report of January 26, 1966.
2. The submission to the Division of Engineering, Ohio Department of Health, at regular monthly intervals, of reports setting forth industrial wastes characteristics as discharged and adequate information to define the effects of the discharge on the waters of Lake Erie.
3. The submission to and approval by the Ohio Department of Health of detail plans of

facilities for the satisfactory treatment and disposal of the industrial wastes of this plant.

4. The construction of the proposed industrial wastes treatment facilities in accordance with approved plans.

Should you have any questions with respect to the above conditions, please notify us promptly.

Yours very truly,

E. W. Arnold, M.D., Chairman

Water Pollution Control Board

Enc.-Permit 1958

Certified mail

cc: Health Commissioner

cc: District Office

* * * * *

APPENDIX III

RECOMMENDATIONS AND CONCLUSIONS OF THE LAKE ERIE CONFERENCE

* * * *

RECOMMENDATIONS AND CONCLUSIONS

(Agreed upon by Conferees from Michigan, Indiana, Ohio, Pennsylvania, New York and U. S. Public Health Service following conference under Section 8 of the Federal Water Pollution Control Act in the matter of pollution of the interstate and Ohio intrastate waters of Lake Erie and its tributaries held in Cleveland, Ohio, August 3-6, 1965, and in Buffalo, New York, August 10-12, 1965.)

1. The waters of Lake Erie within the United States are interstate waters within the meaning of Section 8 of the Federal Water Pollution Control Act. The waters of Lake Erie within the United States and its tributaries covered by sessions of this Conference are navigable

waters within the meaning of Section 8 of the Federal Water Pollution Control Act.

2. Lake Erie and many of its tributaries are polluted. The main body of the Lake has deteriorated in quality at a rate many times greater than its normal aging processes, due to inputs of wastes resulting from the activities of man.
3. Identified pollutants contributing to damages to water uses in Lake Erie are sewage and industrial wastes, oils, silts, sediment, floating solids, and nutrients (phosphates and nitrates). Enrichment of Lake Erie, caused by man-made contributions of nutrient materials, is proceeding at an alarming rate. Pollution in Lake Erie and many of its tributaries causes significant damage to recreation, commercial fishing, sport fishing, navigation, water supply, and esthetic values.
4. Eutrophication or over-fertilization of Lake Erie is of major concern. Problems are occurring along the lake shoreline at some water intakes and throughout the lake from algal growths stimulated by nutrients. Reduction of one or more of such nutrients will be beneficial in controlling algal growths and eutrophication.
5. Many sources of waste discharge reaching Lake Erie have inadequate waste treatment facilities. The delays in controlling this pollution are caused by the lack

of such adequate facilities and the complex municipal, industrial, financial and biological nature of the problem.

6. Interstate pollution of Lake Erie exists. Discharges into Lake Erie and its tributaries from various sources are endangering the health or welfare of persons in states other than those in which such discharges originate, and in large measure this pollution is caused by nutrients which over-fertilize the lake. This pollution is subject to abatement under the Federal Water Pollution Control Act.
7. Municipal wastes be given secondary treatment or treatment of such nature as to effectuate the maximum reduction of BOD and phosphates as well as other deleterious substances.
8. Secondary treatment plants be so designed and operated as to maximize the removal of phosphates.
9. Disinfection of municipal waste effluents be practiced in a manner that will maintain coliform concentrations not to exceed 5,000 organisms per 100 ml at public water supply intakes, and not to exceed 1,000 organisms per 100 ml where and when the receiving waters in proximity to the discharge point are used for recreational purposes involving bodily contact. It is recognized that bathing water quality standards are established by statute

in New York State.

10. All new sewerage facilities be designed to prevent the necessity of bypassing untreated waters.
11. Combined storm and sanitary sewers be prohibited in all newly-developed urban areas, and eliminated in existing areas wherever feasible. Existing combined sewer systems be patrolled and flow-regulating structures adjusted to convey the maximum practicable amount of combined flows to and through treatment plants.
12. Program be developed to prevent accidental spills of waste materials to Lake Erie and its tributaries. In-plant surveys with the purpose of preventing accidents are recommended.
13. Unusual increases in waste output and accidental spills be reported immediately to the appropriate State agency.
14. Disposal of garbage, trash, and other deleterious refuse in Lake Erie or its tributaries be prohibited and existing dumps along river banks and shores of the Lake be removed.
15. The conferees meet with representatives of Federal, State and local officials responsible for agricultural, highway and community development programs for the purpose of supporting satisfactory programs for the control of runoff which deleteriously affects water quality in Lake Erie.

16. Industrial plants improve practices for the segregation and treatment of waste to effect the maximum reductions of the following:

    a. Acids and alkalies.

    b. Oil and tarry substances.

    c. Phenolic compounds and organic chemicals that contribute to taste and odor problems.

    d. Ammonia and other nitrogenous compounds.

    e. Phosphorus compounds.

    f. Suspended material.

    g. Toxic and highly-colored wastes.

    h. Oxygen-demanding substances.

    i. Excessive heat.

    j. Foam-producing discharges.

    k. Other wastes which detract from recreational uses, esthetic enjoyment, or other beneficial uses of the waters.

17. The Michigan, Indiana, Ohio, Pennsylvania and New York Water Pollution Control Agencies undertake action to insure that industrial plants discharging wastes into waters of Lake Erie and its tributaries within their respective jurisdictions institute programs of sampling their effluents to provide necessary information about waste outputs. Such sampling shall be conducted at such locations and with such frequency as to yield

statistically reliable values of all waste outputs and to show their variations. Analyses to be so reported are to include where applicable: pH, oil, tarry residues, phenolics, ammonia, total nitrogen, cyanide, toxic materials, total biochemical oxygen demand, and all other substances listed in the preceding paragraph.

18. Waste results be reported in terms of both concentrations and load rates. Such information will be maintained in open files by the State agencies for all those having a legitimate interest in the information.

19. The Department of Health, Education, and Welfare establish water pollution surveillance stations at appropriate locations on Lake Erie. Surveillance of the tributaries will be the primary responsibility of the States. The Department of Health, Education, and Welfare will assist the States at such times as requested.

20. The Department of Health, Education, and Welfare will be responsible for developing up-to-date information and experience concerning effective phosphate removal and control of combined sewer systems. This information will be reported to the conferees regularly.

21. Regional planning is often the most logical and economical approach toward meeting pollution problems.

The water pollution control agencies of Indiana, Michigan, Pennsylvania, New York and Ohio, and the Department of Health, Education, and Welfare will encourage such regional planning activities.

22. Within six months after the issuance of this Summary, the State water pollution control agencies concerned will present a schedule of remedial action to the Conferees for their consideration and evaluation.

23. The Federal Conferee recommends the following for the consideration of the State agencies:

    a. Recommended municipal treatment - Completion of plans and specifications August 1966; completion of financing February 1967; construction started August 1967; construction completed January 1, 1969; chlorination of effluents May 15, 1966; provision of stand-by and emergency equipment to prevent interruptions in operation of municipal treatment plants August 1966; patrolling of combined sewer systems immediately.

    b. Discontinuance of garbage and trash dumping into waters immediately.

    c. Industrial waste treatment facilities to be completed and in operation by January 1, 1969.

24. Federal installations waste treatment facilities to be completed and in operation by August of 1966.

25. Representatives of the United States Corps of Engineers meet with the Conferees, develop and put into action a satisfactory program for disposal of dredged material in Lake Erie and its tributaries which will satisfactorily protect water quality. Such a program is to be developed within six months after the issuance of this Summary and effectuated as soon as possible thereafter.
26. The conferees will establish a Technical Committee as soon as possible which will evaluate water quality problems in Lake Erie relating to nutrients and make recommendations to the conferees within six months after the issuance of the summary of the conference.
27. The Conference may be reconvened on the call of the Chairman.

At the conclusion of the Cleveland session of the conference the following was included among the conclusions and recommendations of the conference:

> "Pollution of navigable waters subject to abatement under the Federal Water Pollution Control Act is occurring in the Ohio waters of Lake Erie and its tributaries. The discharges causing and contributing to the pollution come from various municipal and industrial sources, from garbage,

"debris, and land runoff.

"Pollution of the Ohio waters of Lake Erie and its tributaries within the State of Ohio endangers health and welfare."

A question has been raised concerning the jurisdiction of this conference over intrastate Ohio waters. The conferees agreed to present this question to the Secretary of Health, Education, and Welfare and the Governor of Ohio for clarification and resolution.

* * * * *

MR. STEIN: Are there any comments or questions from the conferees?

A VOICE FROM THE AUDIENCE: Mr. Stein, may I ask a question?

MR. STEIN: No, just the conferees. If Ohio wishes their participants later, we will be glad to hear from them.

MR. POSTON: I noted under the industrial data comments on Page 6, that you said that it is expected that full conformity with Item 17 will be attained in the next six months to a year.

We have had difficulty getting information relative to industrial waste discharges as to the quantities from individual sewers and the analysis of these particular data.

Would you say now that in six months' time we would be able to get full industrial data in the Lake Erie Basin portion or Ohio portion of the Lake Erie Basin?

MR. EAGLE: Well, even in less time than that, Mr. Poston.

I think we are pretty well satisfied as far as the requirements for the comprehensive survey group are concerned, at least.

As to the data on the Maumee Basin, there are just a couple of little details to be worked out. I don't anticipate any trouble here.

We are in the process of getting it on the Cuyahoga now, and some of this is already coming in, so I would say that we could have this to you well within the six-month period.

MR. POSTON: Well, in regard to the Cuyahoga River Basin, we have not been satisfied with industrial waste information. It just hasn't been there.

MR. EAGLE: Well, I don't know whether we have gotten into the complete detail of this.

You have requested us -- and we are now in the process of clearing this with the industries and getting it made available to you.

As I say, we are supposed to have this completed well within the six-month period. Frankly, most of this approach has been more in the discussion stage rather than in a stage of actually submitting figures and data.

MR. STEIN: I wonder if I may clarify this before we go to Mr. Quigley, because I have been getting correspondence on this.

Mr. Poston, I have seen letters back and forth where you have asked for data. Are you satisfied with the data you are getting from Ohio?

MR. POSTON: Well, we don't have any data on the Cuyahoga River on industrial --

MR. STEIN: Wastes.

MR. POSTON: Industrial wastes.

MR. STEIN: Have you asked for it?

MR. POSTON: Yes, sir. We have asked both the industries and the State for this information.

MR. STEIN: Well, I think the question here is, if this is so, can Mr. Poston expect to get this data?

MR. EAGLE: Yes, sir.

MR. STEIN: When?

MR. EAGLE: As I claim, we are in the process of getting it for you.

MR. STEIN: When? Do you have any dates of when he can expect this to be?

MR. EAGLE: Well, within the six-month period, as I said in the report here, and I would hope that within two or three months we will be able to give him at least 90 percent of it.

We may have to go out and get some more information ourselves, but I would expect that we could satisfy this within a relatively short time.

MR. STEIN: Mr. Quigley?

MR. QUIGLEY: Mr. Stein, I would merely like to comment, in Secretary Udall's absence, I am almost certain

I know the man well enough to know that if he were here in the afternoon session and heard this colloquy, that he would have said -- at least, I am assuming he would have said, and he can contradict me if I am wrong, but I don't think I am -- if he is looking for candidates for his lists of filthy industry, it seems to me that you would have some likely nominees.

It seems to me that any industry that won't come clean and reveal the facts, whether they are pleasant or unpleasant, deserves the full focus of sharp public attention. This I think Secretary Udall made clear this morning. He intends to focus public attention on any industry or any city that just won't face up to its responsibility in this area.

Now, I am new on this particular assignment. I don't know the details of any discussion. I don't know what the holdups might be. But I think it is only fair to serve notice on any industries in the State of Ohio or anywhere else in the Basin involved in this Meeting, or, for that matter, anywhere else in the country, that won't cooperate that you give us little or no choice but to go one of two ways: 1) the way the Secretary referred to today, and that is to ask the Congress to give us additional legislative authority for plant inspection and the right of entry, or 2) the full force of public attention.

We will do it either way, but I don't think anybody should have any doubt when the Meeting breaks up that we are going to do it.

We have to know what the facts are. We have to know what the pollution situation is before we can intelligently move to spell out a proper, sound, corrective timetable. I think the time has come -- and, in case anybody doesn't realize that it has, the purpose of my remarks at this point in the record is to make it clear -- we are going to quit fooling around.

We want the facts, nothing but the facts -- the hard or unpleasant ones as well as the glowing ones. This is the only way that we can accomplish the job.

Having just returned from a luncheon cruise on the Cuyahoga, I am fascinated by the fact, Mr. Eagle, that on Page 6 of your report you indicate, "It may be of interest to the conferees to know that the major industries, municipalities and counties in the Cuyahoga River Basin formed a committee about two years ago ... and the major functions of this committee are: (1) To determine existing river water quality; (which I could answer for them right now on the basis of an hour and a half's exposure) (2) To determine the causes of changes in water quality; (I think I could pretty near write that part of the report in five or ten minutes) (3) To determine the treatment or control requirements necessary to upgrade and maintain water quality for all reasonable and legitimate uses..."

It seems to me that any treatment would automatically result in the upgrading of the quality of a river such as the Cuyahoga.

Then there is the fourth function. This one, I confess, I am not able to answer off the top of my head. This may be why it has taken two years for the committee to report, but the fourth assignment is: "To determine the cost of such requirements."

Now, I would be frankly interested in knowing -- and I think it ought to be spread on the record -- the make-up of this committee; who is serving as its chairman; when was the last time it met; and when is a report of the kind that has been referred to here likely to be forthcoming?

I think it is important that if an industrial committee, a committee made up of public officials, representing the counties and the municipalities in that river basin, were formed two years ago, that it is almost time for at least a preliminary report.

Now, how would we go about finding out if the committee is still functioning and if a report has ever been made and if it is likely to be made. If it is, how might the conferees become privy to it?

MR. EAGLE: Well, Mr. Quigley, the committee is made up by representatives of principal industries. Mr. Charles Loundsbury, who is the manager of the duPont Company here in Cleveland, is the chairman of this committee. Mr. Walter Godell, who is the Director of the Water Pollution Control Agency here in the City of Cleveland, is a member, as well as a representative from Akron and the other major cities in the Basin. There are some sanitary engineers who are members of this committee.

They have met as recently as a month ago. They have several subcommittees that are at work and meet sometimes two or three times a month for a considerable time.

They have made an intensive sampling program of the river, and perhaps will do another one or two after they have been able to evaluate this information.

Frankly, this is a very complex situation. We have many different types of industries that are discharging in a rather limited stretch of water here in the Cleveland area, and they are trying to evaluate the problem and then to come up with a program, each industry come up with a program, which will be reviewed by the other people, the experts, because they are all affected, to see if this would be adequate to improve the water, which in their opinion would suffice so far as the best interests of the public are concerned.

Now, this is admittedly an industry-municipal committee, and while this information will be helpful to the State, it certainly is not going to influence our best judgment and consideration.

This is simply a collection of information and the making of recommendations that would be of assistance. We propose within the year, of course, to hold hearings here at Cleveland, to set up water quality criteria and standards for Lake Erie as well as the Cuyahoga River, which is an influencing tributary of Lake Erie. I think this will be laid out on the table and the Water Pollution Control Board will make a decision which will be forwarded to you for your approval with respect to the quality of the water we expect to have in the Cuyahoga River, and how soon we expect to attain this.

MR. QUIGLEY: What did you say the chairman's name was?

MR. EAGLE: Mr. Charles Loundsbury, who is the manager of the duPont Company in Cleveland, Ohio.

MR. QUIGLEY: Let me ask you one other question on a slightly different phase.

I noticed the several letters that Dr. Arnold has sent out to the municipalities. I haven't had a chance to go through the appendix of the report in detail, but I am assuming comparable letters were sent to industrial polluters who are not now in full compliance with the terms of the permit. What can the State of Ohio do at the present time if a city, or, for that matter, an industry fails to meet the terms which you attach to granting a permit?

MR. EAGLE: The Water Pollution Control Board conducts a show-cause hearing why the permit should not be denied, and if the permit is denied and we do not obtain compliance within the specified legal limits established, then it is referred to the courts.

MR. QUIGLEY: And what, may I ask as a lawyer, with full respect intended for the bench, can the courts do?

MR. EAGLE: The courts can fine the responsible officials.

MR. QUIGLEY: Have they done this?

MR. EAGLE: No, sir, they have not done this. We have closed down some industries because of very flagrant violations for limited times so they could make the necessary improvements.

This has been done by order of the Board, and while we have not tested this in the courts, they did comply with the cease-and-desist order.

In the case of municipalities, we find our most effective weapon to date to be a freeze on any additional building or any additional connections to the sewer system which are tributary to an already inadequate, overloaded plant, or no plant in some cases. Of course, placing a building freeze on this has brought results faster than most any other action.

MR. QUIGLEY: How long has Ohio had the permit system?

MR. EAGLE: Since 1951.

MR. QUIGLEY: I have no further questions.

MR. STEIN: Are there any other comments or questions?

(No response.)

MR. STEIN: I have one just for clarification.

You talked about completion in 1970 and 1971 of plants at Cleveland and Akron. Can we sort those out? Which one is 1970, and which one is 1971?

MR. EAGLE: I think we would have to go back to the tables, Mr. Stein. I am not sure what we do say on the tables. They are on the Cuyahoga River Basin, and we have a lot of things in this index, Appendix II.

I would stress, Mr. Stein, that as to both of these cities we are talking about, they have secondary treatment plants now.

MR. STEIN: Well, not all of the plants in Cleveland are secondary, are they, Mr. Eagle?

MR. EAGLE: Yes, but this is the one I am talking about in this connection.

Now, I didn't give you a detailed breakdown on Cleveland here. I think maybe you will find it back under the Cuyahoga River Basin.

MR. STEIN: The reason I am asking, and I think this is a relatively vital question, is if we are going to establish a time-table for the clean-up of major discharges into Lake Erie, I think the question of whether you are proposing that Cleveland be completed in 1970 or 1971 assumes some significant proportions.

MR. EAGLE: Yes. Under the Cleveland breakdown you will note that as to westerly plant, which is now a primary plant, we are scheduled to have a report and general plan this year in September, which will outline what needs to be done and set up a schedule for these improvements. In our discussions with the city officials in Cleveland, we anticipate that this will take two to three years. and therefore will be well ahead of this 1970 and 1971 date.

MR. STEIN: In other words, you think Cleveland can be all completed and in operation by 1970?

MR. EAGLE: Well, so far as secondary treatment is concerned, yes, sir; but all of these plants constantly need enlargement and improvement. This is what we have pointed out with the 1970 and 1971 dates.

MR. STEIN: I understand that, but will they be in compliance with the recommendations of the conferees?

MR. EAGLE: Yes, sir. So far as secondary treatment is concerned, yes, sir.

MR. STEIN: I don't have any further questions. Are there any other questions?

(No response.)

MR. STEIN: If not, thank you very much for Ohio.

I have just one comment. I didn't want to spend time this morning on commendations. One is for Michigan. As I say, I don't think your record is so bad.

How many individual sources did you have up there -- 37?

MR. OEMING: 36 individual waste disposers.

MR. STEIN: They got compliance on 35. That is only one off. From our experience with a lot of enforcement cases, I think that is a pretty good record of stipulations with 35.

We have heard from the Federal installations. Of course, we have that one outside the Basin, but in the Basin they are all going. One is a little behind, but that is going too. I think that is pretty good.

I have been dealing with Ohio for many years, and they have with us. I hope we are getting more friendly all the time, but this is certainly the most optimistic report I have heard from Ohio, and I think we are talking the same language.

MR. EAGLE: Thank you.

MR. STEIN: I think this is very good.

I wonder if we can go on to Indiana?

STATEMENT OF BLUCHER A. POOLE, CONFEREE AND TECHNICAL SECRETARY, INDIANA STREAM POLLUTION CONTROL BOARD

MR. POOLE: Commissioner Quigley, Chairman Stein, Fellow Conferees and Ladies and Gentlemen:

Shortly after the August 1965 conference, the State of Indiana mailed a copy of the conclusions and recommendations to each municipality which had a sewer system, and to each industry that maintained a separate outlet into the Indiana waters of the Lake Erie Basin.

With that letter of transmittal, we checked the various items of the conclusions of the conferees that applied to the particular installation under discussion, and requested action to comply with the conferees' recommendations.

There follows a very brief summary of the situation insofar as Indiana is concerned.

1. All municipalities with sewer systems have secondary sewage treatment works in operation.

2. The City of Fort Wayne has submitted a request for a Federal grant to construct a pilot plant to reduce phosphates in the waste water treatment plant. The

Federal Water Pollution Control Administration has not as yet acted on the request of the city.

I might add here that there have been various and sundry efforts made in the Fort Wayne sewage treatment plant during the past several months by way of altering operation procedures to see what could be accomplished in the way of phosphate removal with the addition of silting, and I believe everybody requires a modern activated sludge plant.

Unfortunately, there at Fort Wayne, we have not had too much luck. That is, the average phosphate removals have been in the neighborhood of perhaps 12, 15 and maybe some 20 percent, but certainly not to the point that was indicated insofar as the problem in Lake Erie is concerned.

I am hopeful that we can go forward at Fort Wayne with this pilot project, which is in the middle.

3. The City of Garrett advised the Board it will install effluent chlorination facilities and the City of Auburn has included such facilities in its expansion program to protect the Fort Wayne public water supply souce. The Cities of Fort Wayne and New Haven have not been requested to install effluent chlorination facilities pending the establishment of water quality criteria and a determination of water uses for the Maumee River.

I might point out that we are in touch with Ohio, and under the Water Quality Act of 1965, Ohio will be holding its hearings, I think perhaps a little before Indiana, with respect to water quality criteria for the Maumee, but I can assure you that these will be worked together and we will get into harmony. If, as I anticipate, it develops that there are body-contact water uses in Ohio within the reach of Fort Wayne and New Haven, I assure you that the Indiana Board will require chlorination at these facilities.

4. All industries requested to institute effluent monitoring programs with the exception of Kitchen-Quip, Inc., Waterloo, are now sampling or have agreed to sample waste effluents. These data are maintained in open files.

5. Five industrial plants have improved or constructed new treatment works since the conference in 1965.

6. Of the 21 industrial plants in the basin, thirteen have adequate waste control facilities and eight need additional treatment works.

I think, as I reported in August last year, that the monitoring program in Indiana is very adequate for the waters under consideration. There are stations on the St. Joe and St. Mary shortly after they enter the State of

Indiana, and there are two stations on the Maumee between the City of Fort Wayne and the State line.

7. Water quality data at highway 101 approximately two miles from the State line on the Maumee River show the minimum dissolved oxygen was 5.3 mg/l in 1965. This indicates the Maumee River waters are of about as good quality as presently known economic sewage treatment technology can provide, and I would hasten to add, with the exception of phosphates, which I have touched upon earlier, and also with the exception of coliform, which I have touched upon earlier.

8. The City of Fort Wayne has a routine program of patrolling three times each week all regulating chambers at storm overflow points on the sewer system. Less frequent patrolling of storm overflows is carried out by the smaller cities.

9. All cities are requiring separate storm and sanitary sewers in newly-developed areas.

I wish to point out the City of Fort Wayne has under study the possibility of separation or some other means of handling its storm overflow problems.

10. All municipalities have complied with the suggested time-table as all sewered communities in the basin have secondary treatment facilities in operation. All

industrial plants will have adequate waste treatment works in operation on or before the suggested date of January 1, 1969, and I hope well in advance of that date of January 1, 1969.

Now, Mr. Chairman, the rest of the report I can read if you desire, but in essence all it does is document very briefly the situation with respect to each sewered municipality and with respect to each industry that maintains an outlet into any of the Indiana waters of the Lake Erie Basin.

I would suggest we dispense with the reading, but request that the entire report be entered in the record.

MR. STEIN: It will be entered into the record as if read, without objection.

MR. POOLE: Thank you.

MAUMEE RIVER BASIN

Fort Wayne

The City of Fort Wayne is continuing effective operation and maintenance of its sewage treatment facilities. The City is requiring sewer separation in newly-developed urban areas and investigating feasibility in existing sewered areas. The Board of Works has indicated that an engineering study would be instituted to determine what should be done to control pollution from existing combined sewer systems.

Recent monthly reports indicate daily BOD in the effluent ranging from 10 to 35 mg/l with monthly averages less than 20 mg/l and suspended solids ranging from 5 to 25 mg/l with monthly averages less than 15 mg/l.

The city has tried various operational procedures in an effort to obtain better phosphate removal; however, it is removing about as much as it can with present facilities. Special laboratory analyses on 24-hour composite samples show the following results for soluble phosphates in mg/l:

Raw Sewage - Average - 14.5; Maximum - 30.4; Minimum - 3.2
Final Effluent - Average - 13.3; Maximum - 31.6; Minimum - 2.8

The city was considered by the Federal Water Pollution Control Administration for a grant for a plant study on phosphate removal in August 1965. Some preliminary meetings and tests have been conducted and an engineering report prepared; however, approval of the project has not been received.

A private corporation is proposing the installation of sanitary sewers in the fringe area east of Fort Wayne with discharge of sewage and waste to the municipal sewage treatment plant for treatment. These sewers would serve subdivisions and commercial development and two or three major industries in the area.

The municipal water works has received final plans and specifications for water works improvements which include provisions for abating the discharge of waste lime sludge from the water softening process to the Maumee River.

New Haven

The city is providing effective operation of its sewage treatment facilities.

Bullerman-Maumee River Plant

Diversified Utilities, the private corporation operating a 0.5 mgd plant serving a residential area east of Fort Wayne, has experienced difficulty in maintaining effective operation during initial phases of start-up. However, treatment efficiency has improved and further improvement is anticipated in the near future.

Salisbury Division, Dana Corporation, Fort Wayne

Inspections and results from the effluent monitoring program indicate that waste control is adequate. The Corporation's effluent monitoring program has been in effect for 13 years.

Essex Wire Corporation, Fort Wayne

Inspections and effluent data indicate that additional waste treatment is needed. Expansion of the waste treatment facilities and additions to the effluent monitoring program have been requested.

Franke Plating Works, Inc., Fort Wayne

Inspections and results of effluent monitoring program indicate that additional treatment of metallic ions and cyanide is needed. Expansion of the waste treatment facilities and effluent monitoring program has been requested.

General Plating and Engineering, Inc., Fort Wayne

Inspections and effluent data indicate that treatment of cyanide wastes and heavy metals is needed. This is a small job shop and expansion of treatment facilities and the effluent monitoring program have been requested.

Gladieux Oil Refinery, Inc., Fort Wayne

Inspections and effluent data indicate that waste control is generally satisfactory. In-plant studies are being made to locate and eliminate periodic oil spills. An effluent monitoring program is being established.

I T T Federal Laboratories, Fort Wayne

Effluent data and inspections indicate that waste control is generally satisfactory. In-plant studies are being made to locate and eliminate periodically high concentrations of heavy metals. An effluent monitoring program was initiated in March, 1966.

International Harvester Company, Fort Wayne

During 1965, additional industrial wastes were connected to the Fort Wayne sewerage system; however, the results of the effluent monitoring program indicate that additional waste control is needed. In-plant studies are being made to locate sources of waste for discharge to the municipal sewerage system. The company is planning to purchase automatic samplers and expand the monitoring program.

Magnavox Company, Fort Wayne

During 1965, improved housekeeping practices were initiated and waste control was substantially improved. Inspections indicate that waste control is adequate. An effluent monitoring program is being established.

Parrot Packing Company, Fort Wayne

Parrot Packing Company, as a result of a hearing scheduled by the Stream Pollution Control Board, agreed to connect to the municipal sewer system. The city has not constructed the proposed interceptor. The company is negotiating with the City of Fort Wayne and a nearby utility regarding connection to the Fort Wayne sewerage system or the utility system for disposal of all wastes. An effluent monitoring program has been requested.

Phelps Dodge Copper Products Corporation, Fort Wayne

During 1965, an acid neutralization and water reuse system was installed on the copper wire pickle line. Rinse water and remaining industrial wastes were connected to the Fort Wayne sewerage system. The results of the effluent monitoring program and inspections indicate that waste control is adequate. In-plant studies and improved housekeeping practices have been instituted to eliminate periodically high concentrations of copper in the effluent.

Zollner Corporation, Fort Wayne

Inspections and effluent data indicate that only cooling waters are discharged to the receiving stream. Sewage is discharged to the Fort Wayne sewerage system. The plant has no industrial waste.

Shaw's Dressed Poultry, Grabill

Inspections indicate that waste control is adequate. An effluent monitoring program was not required.

B. F. Goodrich Company, Woodburn

The effluent data and inspections indicate that waste control is adequate.

ST. JOSEPH RIVER BASIN

Avilla

The waste stabilization ponds serving this municipality were placed in operation in December, 1965. This was the last sewered community in the Maumee Basin in Indiana without secondary treatment.

Auburn

The city on January 11, 1966, sold a sewer revenue bond issue of $2,285,000 to finance a sewage works project which includes plant additions and effluent chlorination (Federal grant of $411,900). The city is installing new sanitary sewers in several sections of the city and eliminating some combined sewers with the project now under construction. Combined sewers are prohibited in all newly-developed areas.

Butler

The city is providing effective operation of its sewage treatment facilities. The mayor advised, in reply to this Board's letter of January 11, 1966, that sewer separation was required in newly-developed areas.

Garrett

The city is providing effective operation of its sewage treatment facilities. The mayor advised, in reply to this Board's letter of January 11, 1966, that separate sewers would be required in newly-developed areas and that effluent chlorination would be instituted to protect the Fort Wayne public water supply source.

Waterloo

The town is providing effective operation of its sewage treatment plant; however, one lift station is not in effective operation due to surface and ground water problems. The town has been requested to take action to improve this situation.

Crane Edmund Corporation, Butler

Inspections indicate that waste control is satisfactory. During 1965, a static rinse tank was installed and housekeeping improved. An effluent monitoring program has been established.

Universal Tool and Stamping Company, Inc., Butler

During 1965, a static rinse tank was installed following the zinc plating bath and cyanide dragout has been reduced considerably. Inspections indicate that additional waste control may be required. A partial effluent monitoring program has been established. Expansion of the monitoring program has been requested.

Kitchen-Quip, Inc., Waterloo

Inspections indicate that treatment for plating wastes is needed. An effluent monitoring program has not been established.

T. H. Products Corporation, Waterloo

Inspections indicate that waste treatment is satisfactory. An effluent monitoring program was not required.

Auburn Tankage Company, Auburn

Inspections indicate that waste control is adequate. An effluent monitoring program was not required.

County Line Cheese Company, Auburn

Inspections indicate that waste control is adequate. An effluent monitoring program is being established.

Warner Motive Division, Borg Warner Corporation, Auburn

An effluent monitoring program has been established and will be expanded. The results show high oil and suspended solids in the effluent. Extensive in-plant studies are being made to locate and eliminate the source of oil and suspended solids.

Sechler and Sons, Inc., St. Joe

A partial effluent monitoring program has been established. Inspections and previous data show that additional treatment is needed. A consulting engineer has been employed to prepare plans and specifications for waste treatment facilities and plans have been submitted to the Stream Pollution Control Board.

ST. MARY'S RIVER

Berne

The city is providing fairly effective operation of its waste stabilization ponds; however, the Stream Pollution Control Board has suggested operational adjustments to improve efficiency. (The city was operating the two cells in parallel. Series operation was recommended.)

Decatur

The city is providing effective operation of its sewage works facilities.

Central Soya Company, Inc., Decatur

Inspections and results of the effluent monitoring program indicate that waste control is adequate. The company's effluent monitoring program has been in effect since December, 1964.

MR. STEIN: One of the recommendations was, wasn't it, that all the municipalities have chlorination as well as secondary treatment?

MR. POOLE: No. The recommendation was that the municipalities that have coliform counts in water intakes which exceed 5,000 per 100 milliliters, or for water that is used for body contact sports which exceeds 1,000 per 100 milliliters.

MR. STEIN: You have no water contact at all?

MR. POOLE: I had asked my crew to take me down the Indiana portion of the Maumee last September. We have a 14-foot boat with a 5-horsepower motor, and they said, "You can't get down the river unless you want to drag the boat half-way," and I didn't want to be a party to that, so we didn't make the trip.

I don't think in the Indiana section there are body contact sports, knowing the characteristics of the river. I don't know where they start in Ohio, and this is the reason that I indicated that if and when that is determined, why, we will hold up our end.

MR. STEIN: Are there any comments or questions? If not, thank you very much, Mr. Poole.

MR. QUIGLEY: Mr. Stein?

MR. STEIN: Yes.

MR. QUIGLEY: One question: Before I am tempted to make quick quips about Kitchen-Quip meeting its compliance, why are they the one hold-out?

MR. POOLE: I think possibly, Mr. Quigley, because they are a small installation. They are way up on the headwaters, and we probably just haven't breathed down their neck as yet as much as we have some of the others.

It is one of these smaller industries where it would be difficult to establish a sampling program and make arrangements for laboratory facilities. I don't know whether it is big enough to go on the Secretary's list.

MR. QUIGLEY: He might not want to discriminate. He might want some small ones as well as some big ones.

MR. STEIN: As long as we are getting into that detail, let me raise another point with you.

In Point 8 you state:

> "The City of Fort Wayne has a routine program of patrolling three times each week all regulating chambers at storm overflow points on the sewer system."

This means whether it rains or not. Is that right?

MR. POOLE: This is correct. Of course, you understand that in my opinion, at least, in our larger cities -- and I am talking of cities of even lesser size than Fort Wayne -- from there on up -- that the storm overflow problem is not necessarily confined to periods of rainfall. You have periods of peak flow and you have a chunk that comes down the sewer, or this or that thing, that interferes with the diversion in the interceptor.

My personal observation has been that many of the problems associated with storm overflows come at other than times of rain, and I think, as far as I said in Fort Wayne, that this every-other-day patrolling is a pretty reasonable type of program, not perfect.

MR. STEIN: Thank you, Mr. Poole. That implication was pretty clear to me, but I would like to see it in the record.

Thank you.

I wonder if we may call on Pennsylvania. Mr. Lyon?

STATEMENT OF WALTER A. LYON, CONFEREE AND DIRECTOR, DIVISION OF SANITARY ENGINEERING, PENNSYLVANIA DEPARTMENT OF HEALTH

MR. LYON: Mr. Chairman, Mr. Commissioner, Conferees:

I am sorry I don't have too many copies of this report, but the Commonwealth of Pennsylvania is happy to report that with the exception of Recommendation No. 8, all of Pennsylvania's waste sources are in essential compliance with the recommendations of the last conference.

Compliance with Recommendation No. 8 would appear to be dependent, as we said this morning, upon the findings and recommendations of the Technical Committee, which I assume will continue its work.

If you recall, of course, the assignment of that committee included a request concerning the specific levels of phosphate to be maintained in the lake, and levels of phosphate or possibly other nutrients to be removed by waste sources.

After your last conference on September 15th, a detailed report concerning the recommendations and conclusions of the conferees was given to the Pennsylvania Sanitary Water Board. The Board took the necessary action to implement those recommendations.

Specifically, it was necessary to take action on Recommendation No. 8, where we asked each of our municipal waste sources to conduct studies of their treatment plants in order to determine what levels of phosphates were being removed and what more could be done in order to enhance phosphate removal.

Now, our report here, and I won't go into detail, gives us the results of these. Of course, the City of Erie is our most important source of sewage. It, like all of our sewage sources, has complete or secondary treatment. At this point, the phosphate reductions vary between 7.5 and 26.6, which is very low, but the city is planning to conduct research studies in cooperation with our Pennsylvania State University in order to see what can be done to enhance this.

I might also point out that as part of the report on the abatement of Pennsylvania's industries, we are going to have a brewery discharge to the Erie sewer system, and I understand this will have a beneficial effect on the removal of phosphates. Maybe we should have more breweries.

Mr. Chairman, I am skipping through the report, but I would like to have the entire report incorporated into the record.

MR. STEIN: Without objection, the entire report will be in the record as if read.

MR. LYON: Thank you.

"Mr. H. W. Poston May 26, 1966
Regional Program Director
Federal Water Pollution Control Administration
U. S. Department of the Interior
433 West Van Buren Street, Room 712
Chicago, Illinois 60607

"Dear Mr. Poston:

"With reference to your letter of May 16, 1966, I am happy to report that with the exception of Recommendation No. 8 all of Pennsylvania's waste sources are in essential compliance with the recommendations of the Lake Erie Conference. Compliance with Recommendation No. 8 would appear to be dependent upon the findings and recommendations of the Technical Committee appointed in accordance with Recommendation No. 26. If you recall, the assignment of that committee included a request for a recommendation "on phosphate levels to be maintained in the Lake and waste effluents.

"On September 15, 1965, a detailed report concerning the recommendations and conclusions of the conferees was given to Pennsylvania's Sanitary Water Board, and the Board took the necessary action to implement those recommendations. A copy of the Board's September 15 minutes is attached for your information.

"On May 18, 1966, the Department of Health again reported to the Sanitary Water Board on all items on which the Board found a need to take action in September 1965. I am attaching a copy of the Department's report to the Board, and I believe that this material will provide you with the information you need to inform you of Pennsylvania's action to implement the recommendations of the conference.

"If you need any further information concerning this matter, please do not hesitate to contact me.

Sincerely yours,

Att. C. L. Wilbar, Jr., M. D.

RS #168 Secretary of Health"

* * *

II. Section Section - Items for the Board's Information

1. At its September 1965 meeting the Sanitary Water Board took action to implement recommendations made at the conference called under the enforcement provisions of the Federal Water Pollution Control Act convened on August 10, 1965 to consider interstate portions of Lake Erie and its tributaries. The staff was directed to report to the Board in six months on steps taken to comply with the recommendations of the conferees.

   Recommendations of the conferees requiring action by the Board and the steps taken to comply with the Board's action are as follows:

   RECOMMENDATION 8. Secondary treatment plants be so designed and operated as to maximize the removal of phosphates.

   Board Action: That municipalities in the Lake Erie Basin that have significant sewage discharges be notified to:

   1. Conduct a study to determine the present degree of phosphate removal and the type of operation of the present treatment works

that will provide maximum phosphate removals and,

2. Report to the Board within six months.

Report: Letters were directed to the Boroughs of North East, Girard, Albion and Lake City and the City of Erie. A summary of the replies follows:

1. North East - Tests to determine phosphate reduction at the Borough sewage treatment plant were conducted from November 1965 through March 1966. No consistent phosphate removal was achieved; however, removals of up to 54% were recorded.
2. Girard - Results of tests made from December 1965 through February 1966 indicate that the Borough sewage treatment plant was removing approximately 30% of the phosphate load on the plant. The design of the plant makes it impossible to vary the existing flow pattern in an effort to improve phosphate removal.
3. Albion - Initiated tests recently, has not enough data to submit a meaningful report to the Board.
4. Lake City - Tests conducted from November 1965 through March 1966 indicate phosphate removal

approaching 50%. Plant renovations were completed in February 1966 improving phosphate reductions and permitting revisions in the plant flow pattern which could be made in an attempt to improve phosphate removals.

5. City of Erie - Tests conducted in February and March 1966, indicate phosphate reductions of 7.5% and 26.6%, respectively. Studies are in progress to improve phosphate removal while retaining the present general flow pattern in the plant. The city has been in contact with Dr. Nesbitt of the Pennsylvania State University who is conducting pilot plant studies on phosphate removals at the university sewage treatment plant. When these studies are complete a feasibility study will be made for phosphate removals at the Erie sewage treatment plant.

RECOMMENDATION 11. Combined storm and sanitary sewers be prohibited in all newly developed urban areas, and eliminated in existing areas wherever feasible. Existing combined sewer systems be patrolled and flow-regulating structures adjusted to convey the maximum practicable amount of combined flows to and through sewage treatment plants.

Board Action: That the City of Erie be notified to:

1. Report on its program of patrolling flow regulating structures to assure that the maximum practicable amount of combined flow is directed to the sewage treatment plant.
2. Report on any programs the city is considering for the elimination of combined sewers.
3. Report to the Board within three months.

Report: The City of Erie in a letter dated December 9, 1965, reported that the city has made an overall study of the cost of eliminating its combined sewer system. The estimated cost of this project is $22 million. The city has begun separation of storm and sanitary sewers in redevelopment areas. Complete separation of storm and sanitary sewers in the 12 block Liberty-Sassafrass redevelopment area has been completed. A second project in the downtown area is now under design. The city is investigating methods of financing the cost of complete separation of storm and sanitary sewers. The city has instituted a program of patrolling flow regulating structures. Personnel inspect flow regulating structures on a regular basis, adjust and make necessary repairs to the structures to prevent overflows except during periods of heavy combined flow.

RECOMMENDATION 12. Programs be developed to prevent accidental spills of waste materials to Lake Erie and its tributaries. In-plant surveys with the purpose of preventing accidents are recommended.

Board Action: That a letter be directed to all industries in the Lake Erie Basin notifying them of the conferees' conclusion, asking them for a report of the measures that their company now takes or has taken to implement such a recommendation.

Report: Letters were directed to 54 industrial establishments in the Erie Basin asking for a report on measures now being taken to prevent accidental spills of waste materials to Lake Erie and its tributaries. Replies were received from approximately half of the establishments to which letters were directed. In all cases the replies indicated that steps were being taken to prevent accidental spills. Replies were received from all industrial establishments which we feel could have a significant effect on Lake Erie. The Clean Streams Law and the Sanitary Water Board Rules and Regulations specifically prohibit discharges of this type.

RECOMMENDATION 14. Disposal of garbage, trash, and other deleterious refuse in Lake Erie or its tributaries be prohibited and existing dumps along river banks and shores of the Lake be removed.

Board Action: The Board requests the Department of Health to conduct a survey of existing dumps in the Pennsylvania portion of the Basin and, if there are any, take action to stop them immediately.

Report: In November 1965, the Department of Health conducted a survey of all known solid waste disposal sites in the City and County of Erie. Participating in the survey were representatives of the State Department of Health, U. S. Public Health Service and the Erie County Department of Health. A total of 19 sites were visited, of these nine (9) were found to be contributing to the pollution of tributaries of Lake Erie. Recommendations were made to close five (5) sites and to convert four (4) sites into satisfactory sanitary landfill operations. The landfill operations in Erie County are being kept under close surveillance to insure that water pollution from sanitary landfills is abated and prevented.

RECOMMENDATION 17. The Michigan, Indiana, Ohio, Pennsylvania and New York Water Pollution Control Agencies undertake action to insure that industrial plants discharging wastes into waters of Lake Erie and its tributaries within their respective jurisdictions institute programs of sampling their effluent to provide necessary information about waste outputs. Such sampling shall be conducted at such locations and with such frequency as to yield statistically reliable values of all wastes outputs and to show their variations. Analyses to be so reported are to include where applicable: pH, oil, tarry residues, phenolics, ammonia, total nitrogen, cyanide, toxic materials, total biochemical oxygen demand, and all other substances listed in the preceding paragraph.

Board Action: The Board requests the Department of Health to review the adequacy of its industrial waste data on effluents from industries in the Pennsylvania portion of the Lake Erie Basin and within the next six months obtain any needed information suggested by the conferees.

Report: The Department has reviewed information on file on industrial waste effluents to the Pennsylvania portion of the Lake Erie Basin and has found that this information adequately describes the quality of these discharges.

2. The Blue Coal Corporation has continued to discharge in accordance with the approved schedule of Glen Alden Corporation.

   During the period from April 5, 1966, to May 2, 1966, the pool elevation of the #5 South Wilkes-Barre Shaft was lowered 10 feet to 172.0 feet. This is approximately 108 feet below the critical elevation at which the Department of Mines and Mineral Industries would order the miners out of the adjacent workings.

   The range of flow at the Wilkes-Barre Gaging Station for the period April 5, 1966, to May 3, 1966, has been 9930 CFS to 36,500 CFS.

   The river has retained its alkalinity during this period. There were no reported flush-outs of precipitated iron salts.

3. Mineral Preparation Waste Regulations.

   We are planning to meet with representatives of the bituminous and anthracite industry as soon as the transcripts of the April hearing on proposed mineral preparation waste regulations are received and have been studied. We will report to the Board on the results of this meeting as soon as possible.

3. The first session of the Conference called under the enforcement provisions of the Federal Water Pollution Control Act to consider pollution of Lake Erie was held in Cleveland, Ohio, August 3-6, 1965. At that time pollution of Lake Erie and tributaries of Lake Erie in Michigan, Indiana and Ohio was discussed. The Conference was reconvened on August 10 in Buffalo, New York. Testimony lasted two days at this session of the Conference. The conferees met the third day to consider recommendations and conclusions. Dr. Wilbar's testimony was given at the August 10 session in Buffalo. A copy of Dr. Wilbar's testimony is on Pages 0.36 through 0.39. Although the Public Health Service report on Lake Erie presented a pretty bleak picture of pollution control progress in the Pennsylvania portion of the Lake Erie Basin, the Public Health Service representatives stated in answers to questions that the Pennsylvania municipalities and industries have done a good job in pollution abatement in the Lake Erie Basin. It was apparent from the testimony that the States of Michigan, Ohio and New York have some severe water quality problems, especially around the heavily populated areas such as Detroit, Cleveland and Buffalo. Listed below are the recommendations

and conclusions of the conferees. After each recommendation we have listed Department comments and recommendations, where appropriate, as to action the Board should take to implement the recommendations and conclusions of the conferees.

RECOMMENDATIONS AND CONCLUSIONS OF CONFEREES*

LAKE ERIE ENFORCEMENT CONFERENCE

1. The waters of Lake Erie within the United States are interstate waters within the meaning of Section 8 of the Federal Water Pollution Control Act. The waters of Lake Erie within the United States and its tributaries covered by sessions of this conference are navigable waters within the meaning of Section 8 of the Federal Water Pollution Control Act.

   COMMENT: No Sanitary Water Board action necessary.

2. Lake Erie and many of its tributaries are polluted. The main body of the Lake has deteriorated in quality at a rate many times greater than its normal aging processes, due to inputs of wastes resulting from the activities of man.

   COMMENT: No Sanitary Water Board action necessary.

3. Identified pollutants contributing to damages to water uses in Lake Erie are sewage and industrial

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*Representatives of: Indiana, Michigan, New York, Ohio, Pennsylvania and U. S. Department of Health, Education, and Welfare wastes, oils, silts, sediment, floating solids and nutrients (phosphates and nitrates). Enrichment of Lake Erie, caused by man-made contributions of nutrient materials, is proceeding at an alarming rate. Pollution in Lake Erie and many of its tributaries causes significant damage to recreation. commercial fishing, sport fishing, navigation, water supply and esthetic values.

COMMENT: No Sanitary Water Board action necessary.

4. Euthrophication or over-fertilization of Lake Erie is of major concern. Problems are occurring along the lake shoreline at some water intakes and throughout the lake from algal growths stimulated by nutrients. Reduction of one or more of such nutrients will be beneficial in controlling algal growths and euthrophication.

COMMENT: No Sanitary Water Board action necessary.

5. Many sources of waste discharge reaching Lake Erie have inadequate waste treatment facilities. The delays in controlling this pollution are caused by the lack of such adequate facilities and the complex municipal, industrial, financial and biological nature of the problem.

COMMENT: No Sanitary Water Board action necessary.

6. Interstate pollution of Lake Erie exists. Discharges into Lake Erie and its tributaries from various sources are endangering the health or welfare of persons in States other than those in which such discharges originate, and in large measure this pollution is caused by nutrients which over-fertilize the lake. This pollution is subject to abatement under the Federal Water Pollution Control Act.

   COMMENT: No Sanitary Water Board action necessary.

7. Municipal wastes be given secondary treatment or treatment of such nature as to effectuate the maximum reduction of BOD and phosphates as well as other deleterious substances.

   COMMENT: Lake Erie and its tributary streams in Pennsylvania are presently classified as streams requiring treatment and all municipal sewage discharges are presently provided with secondary treatment. No Board action is necessary to implement this recommendation.

8. Secondary treatment plants be so designed and operated as to maximize the removal of phosphates.

   COMMENT: Since all the municipal waste discharges in the Pennsylvania portion of the Basin now receive secondary treatment, some action should be taken to assure that these plants are operated to maximize the removal of phosphates. As the conclusions indicate, the pollution found to be occurring in Lake Erie was caused by phosphates. The above recommendation was made by the PHS representatives and it was their thought that this maximized removal of phosphates be done with existing plants by changing methods of operation. They did not contemplate at this time the construction of additional treatment units to remove phosphates. There is some doubt as to what levels of phosphates can be removed by conventional secondary sewage treatment plants.

DEPARTMENT RECOMMENDATION: That the Board notify the municipalities in the Lake Erie Basin that have significant sewage discharges to:

(1) Conduct a study to determine the present degree of phosphate removal and the type of operation of the present treatment works that will provide maximum phosphate removals and,

(2) Report to the Board within six months.

BOARD ACTION: Motion Jones, seconded Bielo, unanimously carried, the Board adopted the Department recommendation.

9. Disinfection of municipal waste effluents be practiced in a manner that will maintain coliform concentrations not to exceed 5,000 organisms per 100 ml at public water supply intakes, and not to exceed 1,000 organisms per 100 ml where and when the receiving waters in proximity to the discharge point are used for recreational purposes involving bodily contact. It is recognized that bathing water quality standards are established by statute in New York State.

COMMENT: The Sanitary Water Board now requires chlorination of all sewage effluents in the Lake Erie Basin. Beach 11 at Erie periodically has coliform levels exceeding 1,000 organisms per 100 ml. The Department of Health is in the process of studying this problem and no further Board action is necessary at this time.

We will report to the Board on this matter as soon as our study is complete.

10. All new sewerage facilities be designed to prevent the necessity of bypassing untreated waters.

COMMENT: The Board now requires this and no further action is necessary.

11. Combined storm and sanitary sewers be prohibited

in all newly developed urban areas, and eliminated in existing areas wherever feasible. Existing combined sewer systems be patrolled and flow-regulating structures adjusted to convey the maximum practicable amount of combined flows to and through sewage treatment plants.

COMMENT: The Board now prohibits the construction of combined storm and sanitary sewers and no Board action is necessary on this portion of the recommendation. The following recommendation deals with the existing combined sewers in Erie.

DEPARTMENT RECOMMENDATION: That the City of Erie be notified to --

(1) Report on its program of patrolling flow regulating structures to assure that the maximum practicable amount of combined flow is directed to the sewage treatment plant.

(2) Report on any programs the city is considering for the elimination of combined sewers.

(3) Report to the Board within three months.

BOARD ACTION: Motion Charmbury, seconded Sheffler, unanimously carried, the Board adopted the Department Recommendation.

12. Program be developed to prevent accidental spills of waste materials to Lake Erie and its tributaries. In-plant surveys with the purpose of preventing accidents are recommended.

DEPARTMENT RECOMMENDATION: (1) That a letter be directed to all industries in the Lake Erie Basin notifying them of the conferees conclusion, asking them for a report of the measures that their company now takes or has taken to implement such a recommendation.

BOARD ACTION: Motion Pierce, seconded Jones, unanimously carried, the Board adopted the Department Recommendation.

13. Unusual increases in waste output and accidental spills be reported immediately to the appropriate State agency.

COMMENT: The Board already requires this and no further action is necessary.

14. Disposal of garbage, trash, and other deleterious refuse in Lake Erie or its tributaries be prohibited and existing dumps along river banks and shores of the lake be removed.

COMMENT: The Board already prohibits such discharges into the waters of the Commonwealth.

DEPARTMENT RECOMMENDATION: The Board requests the Department of Health to conduct a survey of existing dumps in the Pennsylvania portion of the Basin and, if there are any, take action to stop them immediately.

BOARD ACTION: Motion Bielo, seconded Jones, unanimously carried, the Board adopted the Department Recommendation.

15. The conferees met with representatives of Federal, State and local officials responsible for agricultural, highway and community development programs for the purpose of supporting satisfactory programs for the control of runoff which deleteriously affects water quality in Lake Erie.

COMMENT: No Board action necessary.

16. Industrial plants improve practices for the segregation and treatment of waste to effect the maximum reductions of the following:

(a) Acids and alkalies

(b) Oil and tarry substances

(c) Phenolic compounds and organic chemicals that contribute to taste

(d) Ammonia and other nitrogenous compounds

(e) Phosphorus compounds

(f) Suspended materials

(g) Toxic and highly-colored wastes

(h) Oxygen-demanding substances

(i) Excessive heat

(j) Foam-producing discharges

(k) Other wastes which detract from recreational uses, esthetic enjoyment, or other beneficial uses of the waters.

COMMENT: The Board already requires maximum reductions of the wastes indicated and no further Board actions are necessary.

17. The Michigan, Indiana, Ohio, Pennsylvania and New York Water Pollution Control Agencies undertake action to insure that industrial plants discharging wastes into waters of Lake Erie and its tributaries within their respective jurisdictions institute programs of sampling their effluent to provide necessary information about waste outputs. Such sampling shall be conducted at such locations and with such frequency as to yield statistically reliable values of all wastes outputs and to show their variations. Analyses to be so reported are to include where applicable: pH, oil, tarry residues, phenolics, ammonia, total nitrogen,

cyanide, toxic materials, total biochemical oxygen demand, and all other substances listed in the preceding paragraph.

COMMENT: At the present time the files of the Department of Health include information on industrial waste effluents in the Basin; however, this information should be reviewed in light of the conferees' recommendation.

DEPARTMENT RECOMMENDATION: The Board requests the Department of Health to review the adequacy of its industrial waste data on effluents from industries in the Pennsylvania portion of the Lake Erie Basin and within the next six months obtain any needed information suggested by the conferees.

BOARD ACTION: Motion Sheffler, seconded Bielo, unanimously carried, the Board adopted the Department Recommendation.

18. Waste results be reported in terms of both concentrations and load rates. Such information will be maintained in open files by the State agencies for all those having a legitimate interest in the information.

COMMENT: The information obtained by the Health

Department in connection with the Recommendation 17 would be maintained in open files under existing policies. No Board action is necessary.

19. The Department of Health, Education, and Welfare establish water pollution surveillance stations at appropriate locations on Lake Erie. Surveillance of the tributaries will be the primary responsibility of the States. The Department of Health, Education, and Welfare will assist the States at such times as requested.

COMMENT: No Board action is necessary.

20. The Department of Health, Education, and Welfare will be responsible for developing up-to-date information and experience concerning effective phosphate removal and control of combined sewer systems. This information will be reported to the conferees regularly.

COMMENT: No Board action is necessary.

21. Regional planning is often the most logical and economical approach toward meeting pollution problems. The water pollution control agencies of Indiana, Michigan, Pennsylvania, New York and Ohio, and the Department of Health, Education, and Welfare will encourage such regional planning activities.

COMMENT: The Department on behalf of the Board already has a program to stimulate regional planning in Erie County and there is no Board action necessary at this time.

22. Within six months after the issuance of this Summary, the State water pollution control agencies concerned will present a schedule of remedial action to the Conferees for their consideration and evaluation.

DEPARTMENT RECOMMENDATION: That the Board direct the Department of Health to prepare a report to the conferees.

BOARD ACTION: Motion Charmbury, seconded Sheffler, unanimously carried, the Board adopted the Department Recommendations.

23. The Federal Conferee recommends the following for the consideration of the State agencies:

(a) Recommended municipal treatment - Completion of plans and specifications August 1966, completion of financing February 1967, construction completed January 1, 1969, chlorination of effluents May 15, 1966, provision of stand-by and emergency equipment to prevent interruptions in operation of municipal treatment plants August 1966, patrolling of combined sewer systems immediately.

(b) Discontinuance of garbage and trash dumping into waters immediately.

(c) Industrial waste treatment facilities to be completed and in operation by January 1, 1969.

COMMENT: No Board action necessary.

24. Federal installations waste treatment facilities to be completed and in operation by August 1966.

COMMENT: No Board action necessary.

25. Representatives of the United States Corps of Engineers meet with the Conferees, develop and put into action a satisfactory program for disposal of dredged material in Lake Erie and its tributaries which will satisfactorily protect water quality. Such a program is to be developed within six months after the issuance of this Summary and effectuated as soon as possible thereafter.

COMMENT: No Board action necessary.

26. The Conferees will establish a Technical Committee as soon as possible which will evaluate water quality problems in Lake Erie relating to nutrients and make recommendations to the Conferees within

six months after the issuance of the summary of the conference.

COMMENT: No Board action necessary. Committee has been established.

27. The Conference may be reconvened on the call of the Chairman.

COMMENT: No Board action necessary.

At the conclusion of the Cleveland session of the conference the following was included among the conclusions and recommendations of the conference:

"Pollution of navigable waters subject to abatement under the Federal Water Pollution Control Act is occurring in the Ohio waters of Lake Erie and its tributaries. The discharges causing and contributing to the pollution come from various municipal and industrial sources, from garbage, debris, and land runoff.

"Pollution of the Ohio waters of Lake Erie and its tributaries within the State of Ohio endangers health and welfare."

A question has been raised concerning the jurisdiction of this conference over intrastate Ohio waters. The conferees agreed to present this question to the Secretary of Health, Education, and Welfare and the Governor of Ohio for clarification and resolution.

4. It was not quite clear what action the Board desires on the publicizing of corrected mine drainage violations and we would like to raise this point again. Since a report of violations by the Ponfeigh Smokeless Coal Company and the Manor Hill Coal Company was printed in the newspaper, we released to the newspapers in the same area a report of the Board's action acknowledging compliance by these companies.

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WATER POLLUTION CONTROL IN THE PENNSYLVANIA PORTION OF THE LAKE ERIE BASIN

Statement to be presented by Dr. C. L. Wilbar, Jr., M. D., Secretary of Health, Commonwealth of Pennsylvania, on behalf of the Pennsylvania Sanitary Water Board

Buffalo, New York

August 10, 1965

Introduction

I am appearing today as the representative of the Pennsylvania Sanitary Water Board. The Board has invited representatives of local government, industry and conservation groups to present statements at this conference. I will introduce these speakers at the conclusion of my statement.

We in Pennsylvania are intensely interested in Lake Erie. The lake is an important source of public and industrial water supply and is a popular summer playground for Pennsylvanians as well as tourists from other States.

The Sanitary Water Board has, over the years, endeavored to protect this valuable resource from pollution by establishing complete degree treatment as the treatment requirement for all waste discharges to the lake and its tributaries.

Because of the importance of Lake Erie in Pennsylvania's economy we support the need for the Public Health Service Comprehensive Study of the Lake Erie Basin.

The abatement of water pollution is a complex business, and intelligent action must be based on comprehensive long-range planning in which all pertinent facts are considered.

Description of the Basin

The Pennsylvania portion of the Lake Erie Basin includes portions of Crawford and Erie counties and encompasses an area of 512 square miles.

Agriculture is one of the principal industries in the basin. Grapes and other fruit crops and early maturing vegetables are the most important crops. Some heavy industry is concentrated in and near Erie.

The population of the basin is approximately 260,000, of which about 140,000 live within the City of Erie.

Numerous small streams enter the lake from the Pennsylvania portion of the basin. The U. S. Geological Survey does not measure flow in any of these streams on a regular basis. However, it has been estimated that they contribute an average of about 420 cubic feet per second to the lake.

Water Use

Uses of the waters of Lake Erie in Pennsylvania are many and varied. Recreational use of the lake includes bathing at the many beaches, fishing and boating. The best known and most heavily used beaches are a series of broad sandy beaches in Presque Isle State Park near Erie. Yearly attendance at the park exceeds 3 million people. The estimated dollar value of this facility in terms of annual income to the area is 45 million dollars.

Boating interest is evidenced by the numerous pleasure boats to be seen in the Erie City area on most summer days. Reports indicate that fishing, although less popular in recent years because of a decline in numbers of the more desirable game fish, is still a very popular form of recreation. Commercial fishing has also declined. Nevertheless, it still offers a livelihood or a supplemental source of income for some Pennsylvanians.

The lake serves as a source of municipal water supply for the City of Erie and surrounding communities. Water is drawn from two intakes which extend several thousand feet out from the western shore of Presque Isle. The average water use for this purpose is approximately 39 million gallons per day. Water use exceeding 50 million gallons per day during the summer months is common. The estimated population served is 200,000. The remainder of the population in the basin is served by private on-lot water supplies or by public water supplies which use tributary streams or ground water as sources of supply. Total industrial water use is about 220 million gallons per day. Most of this is used for cooling purposes.

Pollution Control Progress

All of the municipalities in the basin which maintain public sewer systems are served by complete degree sewage treatment works. Complete treatment is that treatment in which a minimum of 85% of the bio-chemical oxygen demand load is removed. It effects the removal of substantially all suspended and settleable solids as well as the removal of oils, greases, acids, alkalis and of toxic, putrescible, taste and odor producing substances. A number of schools and business establishments in the basin do not have access to public sewers and therefore must provide complete degree sewage treatment prior to discharging to streams. A tabulation showing the status of sewage treatment in the Pennsylvania portion of the Lake Erie Basin is attached to copies of this presentation.

All of the industrial establishments in the Lake Erie Basin are meeting the Pennsylvania Sanitary Water Board's waste treatment requirements or are making satisfactory progress toward meeting this goal. The latter group have submitted time schedules for necessary corrective action and are on schedule. A tabulation of the industrial establishments in the basin indicating their water pollution control status are attached to copies of my presentation.

An important case presently making satisfactory progress is the Hammermill Paper Company plant at Erie. A change in the company's manufacturing process about ten years ago created a waste which is not amenable to treatment by conventional methods and created a serious pollution problem.

After a great deal of research the company has chosen to dispose of its strong waste to deep wells. One of the two planned wells has been in operation more than a year. On July 20 of this year, the company received a permit from the Sanitary Water Board to begin operation of its second well. These wells by this time should be effectively handling two million gallons per day of highly concentrated pulp mill waste. These wastes constitute most of the company's high BOD waste. All other wastes from the mill receive treatment prior to discharge to Lake Erie. In the near future, we plan to evaluate the effect on lake quality of the plant discharge to determine if additional pollution abatement steps are necessary.

Water quality in the eastern end of Presque Isle Bay has been adversely affected by discharges of both sewage from combined sewers and of industrial wastes.

Overflows from the Erie City combined sewer and storm drain system during periods of heavy precipitation constitute a source of pollution to the bay. The city has intensified its preventive maintenance program to eliminate unnecessary discharges from combined sewers. Because of the very nature of combined sewer operation we will continue to have periodic discharges of wastes to the Bay and some of its tributary streams during periods of heavy precipitation.

The city has estimated that to separate storm and sanitary sewage systems in order to eliminate periodic discharges would cost 20 million dollars.

Discharges of industrial wastes to the bay through city storm sewers and streams tributary to the bay caused a series of fish kills in Presque Isle Bay during the summer of 1964. A cooperative survey made by the Pennsylvania Department of Health and consultants for the City of Erie has pinpointed these sources of pollution and most of the discharges have been abated. Satisfactory progress is being made toward abatement of the remainder. We plan to study the effect of these discharges on the bay after planned abatement work in the city is completed in order to determine if any additional action is needed.

Water Quality

The quality of the streams entering Lake Erie from Pennsylvania is generally good. The only exceptions are Cascade Creek, Mill Creek and Garrison Run which receive the combined storm and sanitary sewer discharges above mentioned General compliance with Sanitary Water Board waste treatment requirements and the rural nature of much of the watershed combine to preserve the quality of the other Pennsylvania streams at a high level. Conneaut Creek, the only interstate stream of significant size, receives several treated waste discharges, but quality is good at the State line.

Water quality in the lake proper has been generally good except for a zone immediately east of Presque Isle. The effects of the Hammermill Paper Company discharge which entered the lake in this shallow cove have been readily apparent. The dark brown color and propensity to foam have been obvious to the casual observer. Winds from the northeast, which are infrequent and opposite to the prevailing wind direction, have several times in the past caused the waste to concentrate in the cove and in Presque Isle Bay to the extent that dissolved oxygen was seriously depleted and fish were killed.

Extensive sampling of the Presque Isle Beach area for bacteriological analysis over the years has indicated acceptable quality at all beaches except Beach 11 at the eastern point of Presque Isle. High coliform levels at Beach 11 have been correlated with occasional winds from the east which carry the chlorinated effluent from the Erie sewage treatment plant in the direction of the beach. The sewage treatment plant discharges to the lake through a submerged outfall about a mile from the Presque Isle Beaches. Operation and control changes have been made at the sewage treatment plant in an attempt to eliminate this problem.

We have no information available to us that indicates that pollutonn of Lake Erie in relation to Pennsylvania is occurring from another State.

An indication of the eutrophication of the waters of the lake is observed periodically in the Erie area. Heavy mats of algae are washed ashore creating nuisance conditions and discouraging bathing.

Summary and Conclusions

Significant pollution control progress has been made by the municipalities and industries in the Pennsylvania portion of the Lake Erie Basin. We will continue our program aimed at abating the remaining inadequately treated waste discharges in the basin. We realize that effluents from complete degree treatment works and agricultural runoff contain residual pollutants that can adversely affect water quality. Nutrients which speed up the eutrophication process fall in this category.

We expect that the Public Health Service study report will indicate the effect of these nutrients on the lake, where they come from, and how much it will cost the people in the basin to abate this type of pollution.

W. A. Lyon

We have no information that indicates that interstate pollution involving Pennsylvania is occurring in Lake Erie.

Pennsylvanians have devoted a great deal of effort toward abating pollution in our portion of the basin. The economy of the Pennsylvania portion of the Lake Erie Basin depends upon preservation of lake water quality. We intend to continue to do everything in our power to assure that water quality requirements designed to enhance the value of the lake are met.

SEWERAGE STATUS

Lake Erie Basin
~~(July 1965)~~
June 1966

Case Name	Municipality	County	Population Served	Receiving Stream	Adequate Treat. Provided
Conneaut Valley Union Jt. Elem. School	Spring Twp.	Crawford	220	Conneaut Cr.	Yes
Albion	Albion Boro.	Erie	1900	Conneaut Cr.	Yes
Erie	Erie City	Erie	140,000	Lake Erie	Yes*
Erie Co. Home	Fairview Twp.	Erie	675	Trout Run	Yes
Fairview Sch.	Fairview Twp.	Erie	700	Trout Run	Yes
Kahkwa Club	Fairview Twp.	Erie	200	Walnut Cr.	Yes
Terrace Rest	Fairview Twp.	Erie	115	Brandy Run	Yes
Wenner's Esso Station	Fairview Twp.	Erie	20	Brandy Run	Yes
Girard	Girard Boro.	Erie	2500	Elk Creek	Yes
Wattsburg	Greene Twp.	Erie	600	Four Mile Cr.	Yes
Behrend Center (Penn. St. Univ.)	Harborcreek Twp.	Erie	400	Trout Run	Yes
Harborcreek Twp. School	Harborcreek Twp.	Erie	400	Trout Run	Yes
Lake City	Lake City Twp.	Erie	1700	Elk Creek	Yes
Humble Oil & Refining Co.	McKean Twp.	Erie	128	Trib. - Thomas Run	Yes
Georgetown	McKean Twp.	Erie	40	Elk Creek	Yes
Popular White Thru-Way	McKean Twp.	Erie	300	Elk Creek	Yes
North East	North East Boro.	Erie	4200	16-Mile Cr.	Yes
Presque Isle State Park	Presque Isle	Erie	200	Erie Harbor	Yes

SEWERAGE STATUS

Lake Erie Basin
~~(July 1965)~~
June 1966

Case Name	Municipality	County	Population Served	Receiving Stream	Adequate Treat. Provided
Talarico Truck Stop	Springfield Twp.	Erie	547	Raccoon Cr.	Yes
Larry's Truck Stop	North East Twp.	Erie	100	Averill Run	Yes
Howard Johnson Motor Lodge	Summit Twp.	Erie	420	Walnut Cr.	Yes
Oakdale Corp. (Holiday Inn)	Summit Twp.	Erie	350	Walnut Cr.	Yes
Rondale Convalescent Home	Summit Twp.	Erie	134	Trib. - Walnut Cr.	Yes
Summit School Dist	Summit Twp.	Erie	110	Walnut Cr.	Yes
Travelers Rest	Summit Twp.	Erie	175	Walnut Cr.	Yes

* Industrial waste discharges to storm sewers not included in this tabulation. The City is presently working on a program to eliminate all the industrial waste discharges to its storm sewer system.

INDUSTRIAL WASTE STATUS

Lake Erie Basin
(~~July 1965~~)
June 1966

Case Name and Location	Type Waste	Type Establishment	Receiving Stream	Adequate Treat. Provided	Remarks
CRAWFORD CO.					
Springboro Borough					
Albro Packing Co.	I.W.	Food processing	Conneaut Cr.	Yes	
Sealtest Foods	I.W.	Milk processing	Conneaut Cr.	Yes	
ERIE COUNTY					
City of Erie					
Hammermill Beer Co.	I.W.	Integrated Pulp and paper Co.	Lake Erie	~~No*~~ VSP Compliance by July 1, 1966	*Study will be conducted to determine if reduction standards are met after second deep disposal well is in operation
Interlake Steel Corp.	I.W.	Integrated Steel Mill	Lake Erie	Yes	
Kaiser Alum. & Chemical Corp.	I.W.	Manufacture Alum. Products	Motch Run	~~No~~ propose connection to City of Erie Sewer System by 7/66	V-SP. Completion of treat. facilities scheduled for Sept., 1965.
Penelec Co.	I.W.	Electric power product	Erie Bay	Yes	
Ruberoid Co.	I.W.	Coated Asphalt product	Erie Bay	Yes	
North East Borough					
The Elec. Materials Co.	I.W.	Elec. Equipment	Trib. - Sixteen Mile Cr.	~~No~~ Yes closed system	~~V-SP. Completion of treat. fac. scheduled for Aug. 15, 19~~

INDUSTRIAL WASTE STATUS

Lake Erie Basin
~~(July 1965)~~
June 1966

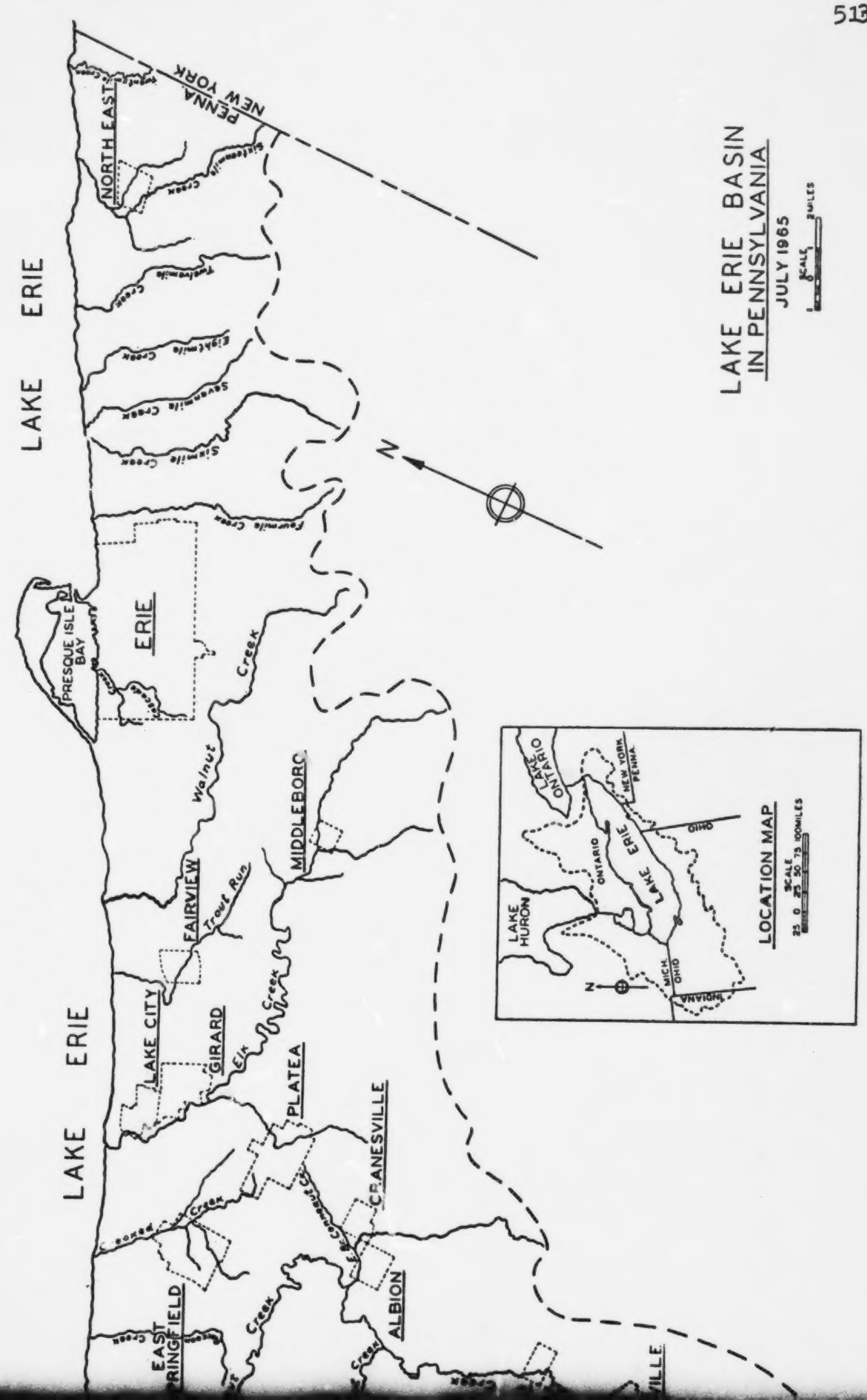
Case Name and Location	Type Waste	Type Establishment	Receiving Stream	Adequate Treat. Provided	Remarks
North East Borough					
Welch Grape Juice Co.	I.W.	Food processing	Sixteen Mile Creek	Yes	
Wesleyville Borough					
J. McCormick Constr. Co.	I.W.	Construction Materials	Four Mile Cr.	Yes	
Millcreek Twp.					
Erie Ceramics	I.W.	Porcelain Enamel products	Unnamed Trib. to Lake Erie	Yes	
City of Erie					
Erie Brewing Company	I.W.	Brewery	Mill Creek	~~*~~ VSP Connection to City Sewer by 7/66	~~*Company has recently eliminated disc. of high BOD waste. A study will soon be made to determine if the Co. is now in compliance.~~
Fairview Twp.					
Fairview Twp. Indus. Development Corp.	Sewage		Trout Run	Yes	
Int. Pipe & Ceramics Corporation	I.W. Sewage	Concrete Pipe	Trib.-Walnut Creek	Yes	
Nickel Plate Sand & Gravel	I.W.	Sand Washery	Trout Run	Yes	
Parker White Metal Co.	I.W.	Metal Prod.	Trout Run	Yes	

INDUSTRIAL WASTE STATUS

Lake Erie Basin
(~~July 1965~~)
June 1966

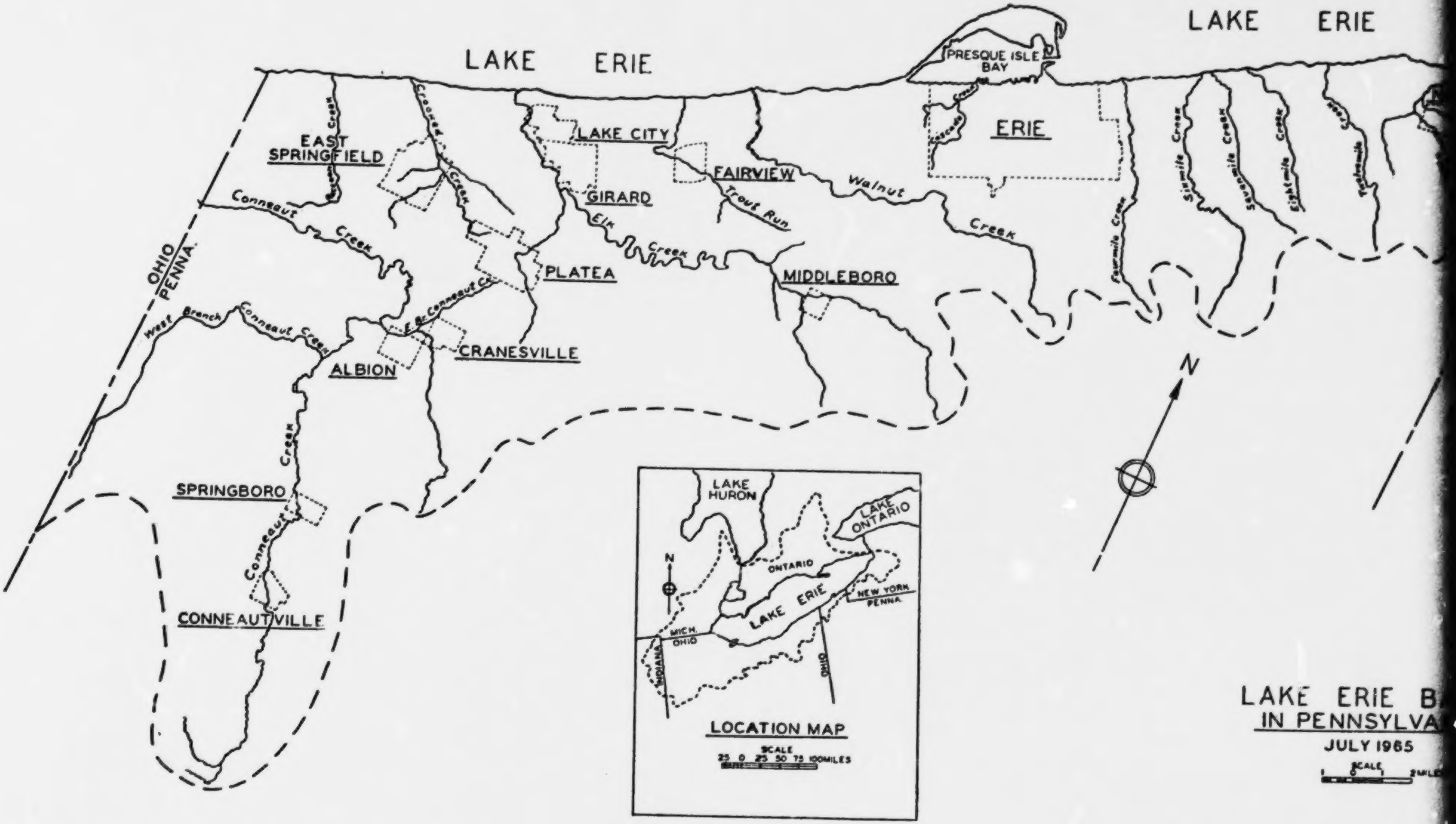
Case Name and Location	Type Waste	Type Establishment	Receiving Stream	Adequate Treat. Provided	Remarks
Girard Boro.					
Gunnison Brothers	I.W.	Tannery	Brandy Run	Yes	
Lawrence Park Township					
Gen. Elec. Co.	I.W.	Heavy machine mfg.	Lake Erie	Yes	
Millcreek Twp.					
American Sterilizer Company	I.W.	Hospital Equip.	Cascade Cr.	Yes	
Ervite Corp.	I.W.	Steel Products	Unnamed trib. to Lake Erie	Yes	

Legend - I.W. - Industrial Wastes
V-SP - Violation-Satisfactory Progress


LAKE ERIE BASIN IN PENNSYLVANIA

JULY 1965

LAKE ERIE
LAKE ERIE
NEW YORK
PENNA.
NORTH EAST
Sixteenmile Creek
Twelvemile Creek
Eightmile Creek
Sevenmile Creek
Sixmile Creek
Fourmile Creek
N
PRESQUE ISLE BAY
ERIE
Walnut Creek
MIDDLEBORO
FAIRVIEW
Trout Run
Elk Creek
LAKE CITY
GIRARD
PLATEA
CRANESVILLE
Crooked Creek
E. Br. Conneaut Cr.
ALBION
EAST SPRINGFIELD
Creek
SCALE
0
2 MILES
LOCATION MAP
LAKE ONTARIO
LAKE HURON
ONTARIO
LAKE ERIE
NEW YORK
PENNA.
OHIO
MICH.
OHIO
INDIANA
N
SCALE
25 0 25 50 75 100 MILES


LAKE ERIE
LAKE ERIE
PRESQUE ISLE BAY
ERIE
EAST SPRINGFIELD
LAKE CITY
FAIRVIEW
GIRARD
PLATEA
MIDDLEBORO
CRANESVILLE
ALBION
SPRINGBORO
CONNEAUTVILLE
OHIO
PENNA.
Crooked Creek
Conneaut Creek
Elk Creek
Trout Run
Walnut Creek
Fourmile Creek
Sixmile Creek
Sevenmile Creek
Eightmile Creek
Twelvemile Creek
West Branch Conneaut Creek
E. Br. Conneaut Cr.
Conneaut Creek
N
LAKE HURON
LAKE ONTARIO
ONTARIO
LAKE ERIE
NEW YORK
PENNA.
MICH.
OHIO
INDIANA
OHIO
N
LOCATION MAP
SCALE
25 0 25 50 75 100MILES

LAKE ERIE B
IN PENNSYLVA
JULY 1965
SCALE
1 0 1 2 MILE

MR. LYON: Thank you very much.

MR. STEIN: Thank you.

Are there any comments or questions?

(No response.)

MR. STEIN: I would like to ask you some questions on some of the details here.

I do not want the record to indicate that we are just asking Pennsylvania the detailed questions.

How about Beach 11 on Presque Isle? Have you opened that yet?

MR. LYON: Beach 11 on Presque Isle is opened normally. There are times when we get an unusual wind from the east side of the lake, when the coliform levels on that day exceed 1,000, which is the limit.

We believe that this is largely due to the present discharges of the Hammermill Paper Company, and occasionally due to the discharges from the combined sewers at Erie. We think, however, that it is primarily coliform from the paper mill, which are not pathogenic.

As I indicated, we plan to make -- and you will find this in our report -- a rather complete study of not only the beach, but the Hammermill discharge situation as soon as Hammermill has put in its second disposal well. We will include a study not only of Beach 11, but of all the beaches, to see if this has abated this, what really is a minor problem. It occurs about once a year, when we get an easterly wind, which is very unusual.

MR. STEIN: Walter, for the benefit of the group here, we have been doing studies on paper mills and sugar beet wastes, and I don't think our scientists go along with the recommendation any more that they are not pathogenic. They have some in the waste beets of the sugar beet mills, and I think the tendency is not to say automatically that they are not pathogenic, but in the cases we have analyzed they have recommended chlorination of these wastes. I think that that may be borne in mind.

As far as the cities of Lake City and Girard, when will those enlarged plants be in operation?

MR. LYON: Lake City -- let me look this up. They are now in compliance. The report indicates in Lake City the plant was completed in February of this year.

MR. STEIN: But they plan to include chlorination?

MR. LYON: All of our sewerage systems are chlorinated.

MR. STEIN: Are they chlorinated now?

MR. LYON: Yes.

MR. STEIN: Year 'round?

MR. LYON: Year 'round.

MR. STEIN: In Girard too?

MR. LYON: As far as I know, they are.

MR. STEIN: And their expansion is completed?

MR. LYON: There was no expansion, as far as my record here shows, indicated in Girard. I would be happy to check into that for you.

MR. STEIN: I think our record indicates -- but let's just check that.

MR. LYON: Yes, I will certainly do that.

MR. STEIN: Now, I think that I would like to read the report that we have on the Hammermill situation, and I want at least the group here to recognize what we are attempting to get is a factual situation and that is why we do this here.

We have gotten the report from Mr. Lyon on Hammermill which indicated that when the deep well was in, the problem would be solved. Our report on this is less than a page double-spaced, but I think the whole thing should be given to you to give you the picture and see if we can dovetail on the agreed facts:

> "Hammermill Paper Company's waste outfall is located just east of the mouth of Erie Harbor, with prevailing winds in the area from the west.

"Hammermill effluents affect the water quality and esthetic appearance of beaches and boating areas for 10 to 20 miles eastward. This line of foam and foul-smelling colored water hinders the development of eastern portions of the basin as a water supply source and a recreational area. It also reduces the usefulness and value of lake front property.

"In addition to their adverse esthetic effect, these discharges cause severe problems with taste and odors in domestic water supply which require costly additional treatment. Periodically Erie is forced to close its eastern water intake to avoid high tannin concentrations. At the time of the August 1965 conference, Hammermill Paper Company was contributing 90 percent of the total oxygen demand load to this area of water. They have since completed installation of a deep well disposal system which has corrected some of the BOD problems. However, the serious problems caused by the discharge of tannins and lignins from spent pulping liquors still remain."

Is this correct?

MR. LYON: I think that what you have said concerning the effect of the Hammermill Paper Company on the beaches is essentially correct.

Our regional office just last week conducted an aircraft surveillance of that area, and there is a definite effect on the beaches to the east from the company. There apparently are occasional taste and odor problems.

As soon as, as I have indicated to you, Well No. 2 is in full operation -- it is now in partial operation; they have not geared up all of their wastes to disposal in Well No. 2, but they have indicated this will be done by July 1st or thereabouts -- we expect that the most serious problems will be solved.

It is difficult to tell at this time whether the entire problem will be solved. Our regional office will conduct a study later in July in order to see whether or not there is any remaining problem, and if there is any remaining problem, appropriate orders will be issued by the Board.

This also applies to any coliform problem that might arise from that discharge.

MR. STEIN: All right. Thank you.

Are there any other questions or comments?

Mr. Oeming?

MR. OEMING: I don't have a question particularly with reference to Mr. Lyon's statement, but I am concerned here about some confusion that seems to be arising with respect to the disinfection of paper mill wastes.

Now, I would like to have this cleared up here, because we are requiring the papers mills in the Monroe area, as one of our requirements, to disinfect these effluents, and I would like to know if we are requiring something that is not necessary. If so, I want to go back and take it out.

MR. STEIN: I will tell you our scientists think it is necessary.

MR. OEMING: This is the Board here. I am just asking.

MR. STEIN: I can just speak for our people, but that is why I raised the question with Pennsylvania.

MR. LYON: Well, the point of the question is this: That most of their waste is going into a deep well. There may not be a coliform problem once they have done this, you see.

In other words, they essentially are abating their most important discharges by disposing of them by the deep-well disposal method, which is to put them in very deep geological formations, which will not affect any surface water or water resource.

So, if there is still a coliform problem after that, we will certainly see to it that it is corrected.

MR. STEIN: Do you have any further questions?

MR. OEMING: No.

MR. STEIN: I think it is fair to say this: That if we find coliform in the paper mill or sugar beet wastes, I think our scientists will not go along with the notion that there are no pathogens present. They find that if the coliform count is positive, it requires chlorination for disinfection.

MR. OEMING: I accept this, Mr. Stein, but I mean the question has been raised here, and I wanted to clear the air.

MR. STEIN: Well, you don't have any problem with that concept, do you, Mr. Lyon?

MR. LYON: No, not at all.

MR. STEIN: All right?

MR. OEMING: All right.

MR. STEIN: Thank you.

If there are no further comments, may we hear from New York?

(The following letter was submitted for the record:

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF HEALTH
P.O. BOX 90
Harrisburg 17120

July 7, 1966

C. L. Wilbar, Jr., M.D.
Secretary of Health

Mr. Murray Stein, Chief
Enforcement Program
Federal Water Pollution Control
Administration
Department of Health, Education, & Welfare
633 Indiana Avenue, N.W.
Washington, D. C. 20203

Dear Murray:

At the Lake Erie Conference held in Cleveland on June 22, 1966, I informed the Conferees that in Pennsylvania all sewage treatment plants discharging to Lake Erie have chlorination. At that time, you questioned me concerning Girard and Lake City.

The Borough of Girard has no chlorination facilities. They do have a time schedule submitted which calls for compliance by August 30, 1968. The schedule includes for completion of sewage treatment plant modifications, including the installation of chlorination facilities.

Lake City just completed construction of modifications which includes a chlorinator and contact tank. We plan to inspect these new facilities in the near future.

I apologize for my oversight and would request that the conference record be amended accordingly.

Sincerely yours,

/s/ Walt

Walter A. Lyon, Director

Division of Sanitary Engineering)

STATEMENT OF DWIGHT METZLER, CONFEREE AND DEPUTY COMMISSIONER, NEW YORK STATE DEPARTMENT OF HEALTH

MR. METZLER: Mr. Quigley, Chairman Stein:

I am Dwight Metzler, New York's latest import.

We heard this morning from the Secretary of some of the progress which New York is making in providing some leadership in this area. There certainly has been an organizational upgrading of the entire water pollution effort in New York State since the last conference.

New York State's Pure Waters Program is imaginative and realistic. It is based upon several major points.

The first is that financing is a problem, and therefore the State will provide for a part of the financing.

You have already heard about the billion dollar bond issue. I like to call this a thousand megabucks, but everyone can use his own terminology. New York voters have voted a thousand megabucks to help finance this program, 30 cents on the dollar coming from the State, and it is advancing another 30 cents on the dollar to local communities for what we hope we might be reimbursed if the Federal Government catches up with us.

The second portion of this is a tax incentive program for industry.

The third deals with water quality standards which have been under way in development in New York State for a period of time, and are now adopted.

The fourth point involves bringing people to hearings, and I can say to you that every major polluter in New York State will have been in on hearings before the summer is out.

In the last six months -- again, I am reporting State-wide, because I have been in New York almost two weeks now so I know only the very general outlines of the program -- but in the last six months we have approved or are reviewing plans for nearly half a billion dollars -- that is, five hundred megabucks -- of treatment plant construction, and over three times this is the total Federal investment in the whole country this year in the construction grants program.

We welcome this opportunity to participate in the conference and in this demonstration of Federal-State responsibility.

I have asked Mr. Hennigan to present to you the details on how we have reacted to the findings of the conference since it met.

STATEMENT OF ROBERT D. HENNIGAN, CONFEREE AND DIRECTOR, BUREAU OF WATER RESOURCES, NEW YORK STATE DEPARTMENT OF HEALTH

MR. HENNIGAN: Mr. Quigley, Mr. Stein, fellow Conferees, Ladies and Gentlemen:

The New York State program has been covered to some extent by Secretary Udall. We appreciate his remarks. It represents, in terms of a State, a commitment to effective water pollution control, a landmark in this country.

When the Lake Erie Conference was called some ten to eleven months ago, New York State's program was a hope and held great potential. Although the main elements had been enacted into law prior to the conference, there was some trepidation as to what the people would do when the issue was presented to them in the election of November 2, 1965. The possibility of the New York State program and its effectiveness is no longer speculative; the people of New York gave the most resounding endorsement in State history to Proposition No. 1, which called for a billion dollar bond issue to finance the construction grants feature of the Pure Waters Program.

Eighty percent approval, 60 percent voter participation, uniformity of results from area to area, and the exercise of discrimination on the remaining 11 issues on the ballot all point out the uniqueness of this endorsement by the people for an effective water quality management program.

You are all familiar with segments of the intense activity and great strides forward which have taken place in the past year. My purpose is to present the totality of the Pure Waters Program and its impact across the State.

A number of things have contributed to the mounting public concern and awareness of water pollution control. This awareness continues to grow and there does not appear to be any sign of diminishing interest. The obvious fact of pollution, the increasing population, the pressures for more water for every use, the generation of more and more wastewater to be disposed of, the drought of the past four years focusing particularly on the water supply problem of the City of New York, the tremendous news media coverage, plus the publication of such books as "Silent Spring" by Rachel Carson, "Disaster by Default" by Frank Graham, Jr., and "Death of the Sweet Waters" by Donald E. Carr, have all aroused public opinion and have kept it at a very high pitch. There will never be any returning to the old days of "too little too late." The threshold of tolerance of the people is very low; continued public demand and support is to be expected.

In the Great Lakes picture, from Lake Superior through Lake Erie, New York State is the State more sinned against than sinning. It is the downstream State. All the water in the Great Lakes system eventually passes through the front yard of the City of Buffalo and continues down the Straits of Niagara into Lake Ontario. Consequently, we are very concerned and have a great interest in seeing effective pollution control activities carried out by our sister States upstream.

New York State has the most dynamic, forward-looking pollution control program in the United States and perhaps in the world. It has been maturing since 1949 and reached fruition with the vote of November 2, 1965. It combines the necessary fiscal and planning commitments with vigorous enforcement activities and technological tools needed to effectively combat this threat to our very existence. However, we in New York recognize that no matter how effective the New York State program, it cannot be totally successful unless there is an effective program on the national level and in each of our sister States. The geographic and hydrological characteristics of New York State place great emphasis on this need. We are involved in international waters on our western and northern boundaries, and are party to no less than seven interstate compacts relating to water resource development and water pollution control. As John Dunne said, "No man is an island unto himself," and New York State cannot carry out an effective water resource development and water quality management program without effective action at both the Federal and State levels.

The growth and development of the Federal program from 1948 through 1965 and its continuing development with the proposed legislation in this session, reflect the great national concern and surely indicate the desire of the people for government at all levels to move effectively in the area of water pollution control. We not only welcome Federal concern and programming in this area; we think it is an absolute essential, including meaningful financial participation. There must be a national policy on water pollution -- one which establishes minimum criteria with which all State programs must conform consistent with local conditions and peculiarities. Without this, there is the threat of industrial relocation from areas with vigorous pollution control programs to areas with weak pollution control programs. Although it has been my personal experience that in most instances this threat is more potential than actual. The Federal financial commitment for construction grants must be commensurate with the need; otherwise remedial action will be stymied.

One major need if the campaign for effective water quality management is to succeed is to reorient the approach in thinking, particularly in the technological approach to pollution abatement. Instead of studying and emphasizing the ability of our waters to take more and more wastewater, we must focus our energies on how to remove those undesirable constituents in wastewaters before discharging into lakes and streams. There is so much waste that is subject only to imperfect control that we must remove the maximum amount of contaminants from our wastewaters that is technically and fiscally feasible. The waste assimilation capacities of our lakes and streams has been overworked to the point that the very concept has played a major role in the deterioration of water quality across the country. This should be of concern only after we have effected maximum removals and should not be used as an excuse for minimum effort and minimum treatment before discharge into the waters of the Nation. The construction cost for the total sewer utility is divided 70-90 percent for collection and 10-30 percent for treatment; yet we still have people who will try to effect questionable economies by insisting on less than full treatment, a phantom economy at best which in reality represents a small part of the total capital investment in the sewer utility.

Continual urban-industrial development, which will follow our increasing population, makes effective action in this area even more urgent -- action which must cover the whole gambit of water resource management; not solely water pollution control. Although without effective water pollution control, effective management of our water resources is impossible. We are long past the time for quibbling about the need. The need is obvious. Future demands even in face of decreasing birth rates will be enormous. Effective programs are needed at the Federal, State and local levels. A partnership must be welded in the public interest which will insure that these three levels of government work together effectively to meet these demands.

New York State has shown the way. The people will support a realistic aggressive approach. Interstate and Federal cooperation and participation is essential as is a strong national policy and program. The future is bright; the time for action is now, as expressed by these words of Shakespeare:

> "There is a tide in the affairs of men
> Which, taken at the flood, leads on to fortune;
> Omitted, all the voyage of their life,
> Is bound in shallows and in miseries.
> On such a full sea are we now afloat;
> And we must take the current when it serves
> Or lose our venture."

New York State Activity Regarding Recommendations and Conclusions of the Lake Erie Conference

Although the recommendations agreed upon at the Lake Erie conferences last year were developed in a short period of time, implementation by New York State in the past ten months has demonstrated, with only minor exception, that the action of the conferees was sound and reasonable. Of the 27 items cited at the conferences, 6 were conclusions and 20 were specific recommendations for action both by the States and the Federal Government. The final item was administrative in nature, having to do with reconvening this conference.

R. D. Hennigan

The conclusions reached are both specific and general in nature. They are specific in order to establish jurisdiction and general in order to provide a foundation for State and Federal action, recognizing that our single problem -- pollution of Lake Erie -- is made up of a myriad of individual technical, economic, legislative and planning problems. New York State welcomed the conclusions reached, and it has been demonstrated to us that they have been of significant assistance in the promotion and conduct of a vigorous State program.

Implementation of the recommendations has been done within the framework of our ongoing State-wide pollution control activities. New York State drainage to Lake Erie is minor -- reportedly accounting for about 37% of the phosphate input, 4% of the industrial outfalls, less than 1% of the suspended solid input, and a fraction of a percent of the chloride and nitrogen input. While the existence of a drainage area to Lake Erie is a hydrological reality, the boundary of the drainage area is but an artifact when considered with the configuration of our political subdivisions. Hence our activity has not been limited to the drainage area per se, rather to a broader municipal base, including the entire areas of Erie, Chautauqua, Cattaraugus, Genesee and Wyoming Counties. The ability to construct public works rests with municipalities who are, incidentally, located in one or more sub-drainage areas.

Some comment should be made in regard to our activity associated with specific recommendations of the conferees.

1. Item 7 -- the need for secondary treatment to effectuate the maximum reduction of BOD and phosphates. Every municipality in the State, including, of course, those in the Lake Erie drainage basin, has been notified of treatment requirements. This amounts to a requirement of at least secondary treatment in all cases. Appended is a resolution by the State Water Resources Commission supporting this policy. It is fundamental that a definition of secondary treatment be adopted. This has been done and is also appended.
2. Item 8 -- the need to design plants which maximize phosphate removal. This recommendation is important from the standpoint of our abatement schedules. Unless answers are forthcoming, delays can be expected. We await information and guidance in regard to this matter from the

R. D. Hennigan

Federal Water Pollution Control Agency as described in item 20 of the Recommendations and Conclusions of the Conference. We have attacked this design problem through our Health Commissioner's Special Committee on Algae and Related Problems and have made studies of removal by conventional treatment processes. Frankly, we are far from a complete answer. Our findings will be shared with the hope that, in partnership with Water Pollution Control Administration, practical solutions will be found.

3. Item 9 -- disinfection of municipal waste effluents. All treatment facilities are being designed to comply with this recommendation. New York State has a statute which sets standards for the bacteriological quality of surface waters. To meet the requirements of the statute, continuous chlorination is required.

4. Item 10 -- treatment plant design to prevent bypassing untreated wastes. We welcome this reinforcement of existing State policy.

5. Item 11 -- elimination of and prohibition of combined sewer construction; surveillance of overflow structures. Prior State policy prohibits

the construction of combined sewers in urbanizing areas. Our sewage treatment plant operation and maintenance grant program has served as an additional tool in guaranteeing the surveillance and proper operation of overflows and flow-regulating devices. (A copy of a status report on our O&M program is appended.) It is not enough to prevent new construction of combined sewers and surveillance of overflow devices. We all face the problems caused by existing combined sewers. This is a particularly difficult problem in Erie County. The major thrust of the recently initiated State-sponsored Erie County Comprehensive Sewerage Study will be directed toward the investigation of methods to ameliorate current problems associated with combined sewers. We are hopeful that the methodology developed for use in Erie County by this study will be applicable to other areas facing similar problems.

6. Item 12 and 13 -- prevention of spills of waste materials and reports of spills. Industries have been alerted to the need of continuous surveillance of operation within their plants to

prevent accidental spills. An alerting system for accidental spills was instituted in the Niagara River area some 10 years ago. This system covers most of the industries in the New York portion of the Lake Erie Drainage Basin.

7. Item 14 -- disposal of solid wastes to Lake Erie and its tributaries. The mere prohibition of dumping is not sufficient. There must be a logical plan established and then implemented for the handling and disposal of solid wastes. The 1966 Legislature has enacted a statute which enables municipalities to make comprehensive studies of solid waste needs. The program is similar to our comprehensive water supply and sewerage needs study programs.

8. Item 15 -- control of run-off. We understand area meetings have been held and are planned for the New York State-Pennsylvania area. Of course, we have a Pesticide Control Board now.

9. Item 16 -- improved practices for reduction of industrial pollutants. A routine portion of our enforcement contacts with industry includes review of practices to reduce contaminants. The matter is formally reviewed by consulting engineers

submitting engineering reports to the State Health Department.

10. Items 17 and 18 -- sampling of industrial wastes and maintenance of records. Chapter 595 of the 1966 Laws of New York State was discussed in detail earlier. This strengthens the State's previous general authority in this area. Chapter 595 is specific; it permits the State to comply completely with item 17. State files on pollution are open files.

All industries in the basin have been advised of the conclusions and the results of the Lake Erie conference. They have been advised that the State policy is to proceed on formal legal proceedings, and we are moving in that direction.

In terms of specific orders issued in the Lake Erie Basin as a result of legal proceedings, orders have been issued against Moench Tanning, Brocton Village, National Aniline, Lawtons Can Company, Lancaster Village, DePew Village, two sewer districts in the Town of Amherst, Mt. Vernon sewer district, and the Village of Silver Creek, which you might be aware of.

We had another experience similar to that on this particular watershed relating to a paper mill, and that situation has been abated and the paper mill went out of business.

MR. STEIN: Mr. Hennigan, I wonder, for the purposes of the record, if at this point I might ask a question?

Since you issued the orders against those, do I assume that you consider the progress in Buffalo in reducing its BOD 22-½ percent; Tonawanda Township reducing its BOD 12 percent; and the following industrial firms -- Socony Vacuum Oil Company discharging oil, phenolics and cyanides;

and Hanna Coal Company discharging phenolics, cyanides, ammonia, oil, solids, and BOD; Republic Steel Company, phenolics, cyanides, oil and solids; Federal Chemical discharging inorganic wastes -- the progress there is satisfactory so that you don't have to issue orders?

MR. HENNIGAN: We are going to issue orders against everybody.

We are now negotiating with Bethlehem Steel and we have every indication that -- the important thing, as far as the State program is concerned, is the formal legal proceedings are becoming a part of every enforcement action, including municipalities. In other words, we are not proceeding on the basis that somebody promises to be good without a legal hold on them.

National Aniline is now under order. We are negotiating with Bethlehem Steel. We are negotiating with Republic Steel. This is all on a legal order basis.

As I say, we are going to issue the rest of them in their particular Buffalo River complex. The major primary plants are Tonawanda in the City of Buffalo, operated by the Buffalo Sewer Authority, which now discharges the waste into the Niagara River, or a tributary of it, and these municipalities have all been advised they are going to have to put in secondary treatment.

On a State-wide basis we are handling about 12 to 15 legal proceedings a month, and these people will get into the pipeline when their turn comes around.

As a matter of fact, we concentrated on the Hudson River for quite a while -- that is, after we got the bond issue passed.

11. Item 19 -- Federal surveillance of Lake Erie and State surveillance of tributaries. A manual surface and ground water network has been in operation for several years. Approval has been secured for a 60-station automatic water quality monitoring network, and two stations are presently being installed.
12. Item 21 -- conduct of regional plans involving area-wide solutions. Appended are status reports on comprehensive sewerage and public water supply studies sponsored by the State Health Department. These are generally county-wide studies. The Erie County comprehensive sewerage study was cited earlier as an example of these studies. The Erie-Niagara Regional Water Resources Planning and Development Board Study is progressing rapidly and serves as a regional reference for the more specific utilities studies which are being prepared.

One thing that is important in the regional planning and one thing which should have emphasis is the discharge of sewers in the combined sewer problem, which is very acute in the Erie County area.

13. Items 22 and 23 -- report of remedial action and construction schedule. A schedule has been submitted for evaluation. The realities of the time involved to secure intermunicipal cooperation, prepare preliminary and final plans, process Federal grants and to construct should be carefully reviewed. As mentioned earlier, we are concerned over the development of a phosphate removal methodology and its insertion into abatement timetables. Federal guidance followed by conferee agreement is essential in this area.

We have established some sort of preference. As I mentioned, we go into the formal legal proceeding, the start of a comprehensive study of both water supply and sewage, and also the operation of the State operation and maintenance program, and the requirement of additional treatment facilities.

At the present time, roughly some $500,000 has been granted to 25 municipalities in this area.

We have plenty of problems left, and I would be less than straightforward if I tried to give you the idea that we had all the problems solved in the Lake Erie Watershed, or any other place in the State. The truth of the matter is, we do not.

We have the tools and we have the program, and it is a program that is moving forward. The construction grant phase of it is just getting into gear.

Public opinion has been all the way on this. The reaction of the municipalities has been quite good. Some of the industries are rather surprised that maybe the State means business, but the whole program is moving ahead. Within the next week or two a comprehensive report on the first year of the entire State program will probably be released from Albany.

Details of New York State Activities in the Lake Erie Drainage Basin

Additional activities in the areas of comprehensive utility planning, construction grants, and operation and maintenance grants are presented in tabular form. Enforcement details were submitted previously in accordance with the Conference agreements.

R. D. Hennigan

Highlights of our activities in the basin include:

1) Successful legal action against the Village of Silver Creek. Construction is under way.

2) Accelerated enforcement hearings, including major municipal and industrial polluters. 12 hearings and 9 Commissioner's orders.

3) Complete involvement in comprehensive sewerage studies.

4) Comprehensive public water supply studies for 6 areas cover the major portion of the drainage basin.

5) Sewage treatment plant operation and maintenance grants paid to 25 municipalities at a cost of $475,944.52.

R. D. Hennigan

Comprehensive Intermunicipal Public Water Supply Studies

Lake Erie Drainage Basin

Status

Studies in Progress

PWS-2	Erie-Cattaraugus Counties (Gowanda and Environs)

Study Applications Being Processed

PWS-37	Genesee County
PWS-40	Orleans County
PWS-42	Wyoming County

Local Action to Prepare Applications

Chautauqua County

Cattaraugus County

STATUS OF COMPREHENSIVE SEWAGE STUDIES
LAKE ERIE DRAINAGE BASIN

County	In Progress	Administrative Approval	Disapproved	Being Processed
Cattaraugus	0	1 Sewer Agency	0	0
Chautauqua	0	1 Hanover (T)	0	2 Charlotte (T) Chautauqua County
Erie	2 Eden (T) $18,014 Holland (T) $12,107	2 Depew (V) Grand Island (T)	3 Lancaster (V) and Environs Lackawanna (C) County Sewer District #3	3 Elma (T) Erie County Study Collins (T)
Wyoming	1 Arcade (V) $18,450	0	1 Sheldon (T)	1 Wyoming County
TOTALS	3 $48,571	4	4	6

STATUS OF SEWAGE TREATMENT PLANT OPERATION AND MAINTENANCE PROGRAM

LAKE ERIE DRAINAGE BASIN

Municipality and County	Grant Approved	Grant Disapproved	Applications Being Processed	Grant Requested
Chautauqua County				
Dunkirk (C)	X			$ 29,807.82
Westfield (V)	X			4,954.37
Ripley (T)			X	2,706.51
Fredonia (V)		X		
Cattaraugus County				
Gowanda (V)	X			$ 4,657.04
Erie County				
Blasdell (V)	X			$ 12,927.83
Buffalo (C)	X			409,682.14
North Collins (V)	X			2,171.72
Springville (V)	X			3,626.57
Lancaster (V)	X			5,256.76
Lancaster (T)		X		
Hamburg (T) - Sheldon Acres STP		X		
Lackawanna (C)			X	60,172.66
Orchard Park (V)			X	2,795.49
West Seneca (T)			X	33,119.62
Boston (T) - Sewer District #1			X	231.50
- Sewer District #2			X	534.70

Municipality and County	Grant Approved	Grant Disapproved	Applications Being Processed	Grant Requested
Erie County (cont'd)				
Hamburg (T) STP			X	$ 15,883.72
- Benz STP			X	583.34
- Lakecrest Terrace			X	667.22
- Bethford			X	1,171.95
- Wanakah S.D.			X	4,570.65
Depew (V)			X	8,816.13
Hamburg (V)			X	6,719.61
Mt. Vernon S.D.			X	4,877.00
Erie County S.D. #2, North Plant			X	5,600.87
Erie County S.D., South Plant			X	12,134.11
Wyoming County				
Arcade (V)	X			$ 2,860.27
		TOTAL GRANT APPROVED		$ 475,944.52
		TOTAL APPLICATIONS ON HAND*		$ 160,585.08
		GRAND TOTAL		$ 636,529.60

* includes some applications which will be disapproved

MR. STEIN: Thank you, Mr. Hennigan.

Are there any comments or questions?

(No response.)

MR. STEIN: If not, I don't think that the characteristic candor of Mr. Hennigan should indicate to anyone that the New York program isn't moving along as well as the other State programs. It probably is, but, you know, there are different ways of saying it.

No further comments or questions?

MR. POSTON: Wait a minute.

MR. STEIN: Yes.

MR. POSTON: I was expecting to hear some tentative dates that you might expect to come forth with on the construction of the needed facilities, and it seems to me, as a conferee, that this is one of the things that we are here for, but I don't know whether this is --

MR. STEIN: I don't know. I thought possibly we would go over these points, particularly the dates, with all the States together in the summary, if they didn't offer it in their original statements, to reconcile it and get a statement from all the States concerned.

We do have these two recommendations, and I think you all know this -- probably the key recommendations for this Meeting are Recommendations 22 and 23.

R. D. Hennigan

Recommendation 22 says:

> "Within six months after the issuance of this summary, the State water pollution agency concerned will present a schedule of remedial action to the conferees for their consideration and evaluation."

The Federal conferee then, in No. 23, recommended some dates for consideration by the State agency, dealing with municipal treatment, discontinuance of trash and garbage dumping, and industrial waste treatment facilities.

I think what we have attempted to do here is allow the States to present their reports as we usually do in their own manner, and try to see what reconciliation and what compliance we can get.

I do think that it is quite clear that we have pretty substantial agreement among the States -- and I think this is a very good point -- from Recommendation 7 right on through all the recommendations.

I think one thing we will have to clarify and attempt to get a precise, simple statement on is the schedule of remedial action for the various States. It might be wise to go over this No. 23 with each State together and see if we can collate those.

If that procedure is satisfactory, maybe we can wait until we have this go-around and call on each State point by point. All right?

MR. POSTON: All right.

MR. STEIN: Well, thank you, Mr. Hennigan.

Are there any other statements?

MR. METZLER: Mr. Chairman, I have a question of procedure. I hope you will bear with me because I am a late-comer to this conference.

MR. STEIN: Dwight, we have worked together for all these years. You probably have more experience in conferences than anyone else in this room except me, but go ahead.

MR. METZLER: Well, actually I wanted to draw on that experience, Murray, just briefly, to inquire if, as I have noted we have done elsewhere, there was an opportunity for the delegations who may be along with the States also to make a contribution. I hope that you weren't going to wind this up before they had a chance to.

MR. STEIN: No. We will give you an opportunity to do that.

Let me give you the commitments we have here.

MR. METZLER: All right.

MR. STEIN: A lot of the people at the table had come here with the notion of a one-day meeting.

We all welcomed -- I include myself, of course -- the addition of the Secretary and the other dignitaries we have had here.

Recognizing the importance of that from a Federal-State-city-industrial push on the program, we are way ahead in having the Secretary here. I believe he gained an appreciation in hearing and being with you people here and in the course of the boat trip that he never could get in Washington by hearing this second-hand from Mr. Quigley or myself.

However, I think by getting these additions, we, of necessity, must be more brief. Some of the State people did not expect to stay more than one day. Now, with that in mind, if they expect to leave tonight, I would appreciate it if any people you called on kept their statements brief. We have to run through the summary and also try to have the conferees here make their commitments.

We recognize that we used several hours for a boat trip and other things which were not contemplated when we originally came.

With that, Mr. Metzler, you may go ahead and call the people.

MR. METZLER: Thank you. I actually have a request for a two-minute statement from one of New York's representatives, and he is the only one.

STATEMENT OF STANLEY P. SPISIAK, REPRESENTING THE NEW YORK STATE CONSERVATION COUNCIL

MR. SPISIAK: Thank you.

I can talk fast, but I don't believe I will make it in quite two minutes.

I am a citizen of New York State, and am quite proud of the leadership that New York State has assumed, although Ohio seems to be doing a better propaganda job in claiming credit for a million dollar program. When I heard that presented, I wanted to ask that you give us a little bit of credit also.

Be that as it may, I am concerned with only one particular point, and this is a very important point. Up to this time, we have had so much harmony and peace that perhaps a word or two of friendly criticism would not be amiss.

Sometimes I find that it is necessary for me to express my opinion, which is not always favorable, and at this moment I would feel in a kindred position.

S. P. Spisiak

The Federal people have asked us so many questions, and we have answered them diligently. I think it time now that we ask just one question.

I am concerned about something that is of great importance and can have an immediate beneficial effect. This pertains to something that I hoped our boat trip people would have been able to visit with and see a little bit more distinctly. However, this pleasure was **somehow** denied them.

This is the dredging of material from your river, and, more importantly, the one that I am more concerned with, the removal of debris from the Buffalo River.

You heard Chairman Stein just a few minutes ago ask our good friend, Bob Hennigan, about Republic Steel, National Aniline, and a few other contributors to an open sewer commonly called the Buffalo River. This is a subsidized sewer which exists primarily for the purpose of removing waste material for five major industries in the Buffalo area. The solids and settleable solids, the acids, the phenols, the cyanides, the oils, the tars -- every deadly and undesirable type of material is discharged by these industries into this Buffalo sewer or Buffalo River, if you will.

This material, the major portion of it -- in fact, I think there has been a waste here some place, because the discovery of heavy water could have been many years sooner if they had just made a trip up the Buffalo River, because certainly the buoyancy of this water is such that even wood finds a hard time floating upon it, and ship captains refer to this as the scrubbing river. When they need to refinish their hulls, they only spend, with their metal hulls, an overnight trip in the Buffalo River, and their hulls are completely scoured when they come from it, so that they can have them repainted without any additional work.

Now, through the courtesy of the Corps of Engineers and the United States Government, 125,000 cubic yards, or, more specifically, 25 million gallons, since this is a liquid and should be measured as such, of this deadly and toxic material is removed each year, and then taken from a river where it would no longer do any harm. We are placed in double jeopardy because this material is removed and, like a caged tiger, is released upon our bathing beaches. This is dumped into what is called the Woodlawn Beach, in a one-mile square area, where this 125,000 cubic yards each year has been disposed of in a one-mile square area, which was 12 feet deep before this discharge started, and which now, more than a quarter of a century later, is still 12 feet deep.

Realize that this material is moving, as all liquids will, with the will of the wind and the wisp of the waves, and it is finding its way all along our bathing beaches, to the point that the State of New York, through the good grace of the Federal Government, has had to close the majority of the beaches.

In fact, every single beach in the State of New York should be closed largely as a result of the discharge of these materials, which are placed in a position where they can render the greatest deal of harm.

This, I think, is a question for us to have answered, not as evasively as it was answered this morning by the Corps of Engineers.

Here I would just like to read very briefly one paragraph of a letter from Senator Kennedy:

> "Thank you for arranging the trip on the Buffalo River on June 17, 1965. I found the conditions on the river from a visible standpoint shocking. Dredging the wastes from a river bottom and depositing them in the harbor seems to offer a great danger of contamination to local water supplies."

I might add our water intake is downstream about one mile from the discharge point of these deadly toxic materials, and at times -- at times has entered the public drinking supply in the City of Buffalo.

In Point 25 of the recommendations of the conferees of this group last year, representatives of the United States Army Corps of Engineers are to meet with the conferees, develop and put into action a program for the disposal of dredged material in Lake Erie and its tributaries, which will satisfactorily protect water quality. Such a program is to be developed within six months after the issuance of this summary and effectuated as soon as possible thereafter.

The report this morning was that this matter is bogged down and tied down one year and a few days later, and has reached no satisfactory conclusion.

At this very identical moment, the discharge of these materials is continuing, and will suspend within one week, having completed its job. You and your Cuyahoga River here are disposing of not just 125,000 cubic yards, but nearly 8 to 10 times as much of this material, and you are placing yourselves in double jeopardy.

I think it would be nice if we left this group here today with some assurance that the Federal Government will meet its responsibility and that this double jeopardy will cease to exist.

Thank you.

MR. STEIN: Thank you, Mr. Spisiak.

You know, I really think good propaganda jobs are important, because they show people are interested. While I am all for them and would like to encourage them, I wonder sometimes, with your $1 billion bond issue and the appeal and approach and the focus on this of Governor Rockefeller and Senator Kennedy, and with that wonderful speech you just made, how we can possibly accuse Ohio of doing a better propaganda job than New York.

(Laughter.)

I think the propaganda job that you have done in New York has been wonderful. As a matter of fact, the Secretary and everyone in Washington knows about that $1 billion bond issue you passed in New York.

MR. SPISIAK: It bears repetition.

MR. STEIN: I know it bears repetition, but I wish some of the other States would do the propaganda job that New York has done, because this is what starts pollution control moving.

Are there any comments or questions?

MR. POOLE: What do you want? Pollution control or propaganda now?

MR. STEIN: I think they go hand in hand.

(Laughter.)

MR. SPISIAK: Nothing happens until the sale is made.

MR. STEIN: Do we have any other comments or questions?

(No response.)

MR. STEIN: Or do any of the other conferees have invitees from their States?

(No response.)

MR. STEIN: If not, we can, I think, proceed with the summary.

I think we can indicate that we have substantial agreement on most of the recommendations and adherance to those by the States. I don't know -- they have been repeated over and over again -- whether we have to go over these again, about secondary treatment from the municipalities; the removal of phosphates from municipal treatment plants to the maximum; the disinfection of municipal waste effluents where required; the design to prevent the necessary bypassing and the problem of elimination of the combined sewer problem; the program to prevent accidental spills, and the reporting of accidental spills; the prohibiting of dumping garbage, trash and other deleterious substances into Lake Erie; and, the question of the highway and community development programs for controlling of runoff.

This last point may be one we may want to discuss, because, as I have heard the reports here, as far as I see it, the reports are not completely or materially going to solve the problem.

We have a problem here. As I understand it, the road officials are going to achieve earlier ground cover. As I understand the proposal, there is no program, and possibly no feasible way during the construction to stop the runoff. We are going to be plagued with the problem continually until we do that, unless we devise a method of constructing roads which will prevent runoff. However, I don't think there is any point in deluding ourselves that we have solved our problem. If I am wrong on that, let me know.

Is it fruitful to have any further meetings with the roads people to see if we can improve this practice? This isn't just roads, you know. It is subdivisions too.

Mr. Metzler:

MR. METZLER: I just wanted to point out that in

New York State, as I understand it -- and I think Mr. Hennigan referred briefly to this -- we attacked the biggest one first, and that was the road-building people.

Governor Rockefeller is very much personally interested in this aspect of the approach, but you are quite right in saying we have no solution. However, we found some responsible people who are willing to be cooperative on this part of the program.

MR. STEIN: My view on this, gentlemen, is that as long as we have the road program and the runoffs, we are going to get complaints. There is nothing like silt to give you a complaint.

You know, I think we have done a tolerably decent job on the Potomac River in eliminating the health hazard, eliminating largely the sight and odor nuisance, except in late August generally, when we still have the algae die off. As long as that river remains muddy, people say you haven't cleaned it up.

My notion is, if it is agreeable to the conferees, that we, in the technical meetings with the road committee, before the next meeting see if we can report some progress; because if we let the problem go, then nothing is going to be done.

I don't know that we have a complete solution on the roads problem now, but I think this is going to require continual cooperation and meeting with the people. Possibly we can find someone to come up with some proposal in road construction to minimize the problem.

Mr. Lyon?

MR. LYON: Mr. Chairman, I believe I understood from Mr. Poston that there is an agreement being drawn up, or some type of --

MR. POSTON: A directive has been written.

MR. LYON: A directive has been written that will communicate from your agency to the Department of Commerce?

MR. POSTON: From the Bureau of Public Roads to the directors of public roads of --

MR. LYON: From the Bureau of Public Roads to the appropriate State agencies?

MR. POSTON: Yes.

MR. LYON: It seems to me essential that the Bureau of Public Roads recognize that it will cost them additional money to attain these pollution abatement steps in the process of highway construction.

In working with our Department of Highways, we have found that in a number of instances they have apparently not allowed the funds that were necessary to prevent pollution, and it would seem to me essential that the Federal Government agencies come to some agreement on this.

MR. STEIN: Mr. Lyon, I will tell you, I think you are entirely right; but I think this is somewhat analogous to the stormwater separation problem that we had with urban renewal.

The point is, once we have a plan or a feasible way of doing this during construction and preventing it, I think this has such an appeal the funds will be forthcoming.

The difficulty and the difficult position that we are in at this time is that given that directive, can we go to the Bureau of Roads or the State Roads Departments or the contractors and say, if you will do so-and-so and so-and-so, this will only cost you X more thousands of dollars and we won't get this runoff? We do not have a proposal like that yet.

My notion is that we should try to develop something possibly by the next conference and see if we can work in that direction, because I don't see daylight in solving this road problem yet. We can ameliorate it slightly by putting on the ground cover a little faster.

MR. POSTON: I think this should apply not only to roads, but also to agricultural runoff.

MR. STEIN: Let's take one at a time.

Again, I will speak, certainly, on the record here. As you know, and a lot of you do here, and Dwight has been out in the West -- the hardest group to deal with in pollution is the agricultural interests. There are so many and they are really well vested.

I think with the roads program, though, again I say this is analogous to the storm sewer program. This is largely a Federal program with 90 percent Federal money.

If we can come up with a method to handle the roads program or a reasonable method, we will sell it.

Let me mention one more thing. The people who handle the roads program in the Congress are the same people who handle the pollution legislation. We go before the same committee and the same people, and we have a very, very sympathetic group that will look at this as a public works problem that they are ready to solve if we can give them a solution.

I say let's take the first things first. That agricultural problem is going to be harder and we are going to have to do a lot more selling to get that accepted.

If we would do that, Mr. Poston, if you could continue the committee, or possibly get one of the bright scientists to come up with a proposal for consideration, maybe we can, in dealing with the States, come up with a consensus on a proposal that would minimize runoff during road construction.

We go to No. 16: Industrial Plant Practices.

I think we are pretty much in agreement on that. We have the list down here of the substances. As we all know, these industries have to be dealt with on a case-by-case and plant-by-plant basis.

I think we are fortunate that in the five States represented here we have highly sophisticated industrial waste sections in each of the States, people who are familiar with the problems and in dealing with the industries. I am sure adequate proposals are being developed for each industrial plant.

I think the sampling program by industries is proceeding apace, as I see it, from the five States; and the results, I would say, have exceeded my most optimistic hopes on this. I think the data disclosure program is proceeding very well too.

I think we are on the verge of getting pretty complete sampling, and some of the States like New York are forming it into law. We are on the verge of getting pretty complete disclosure of information on a routine basis, which should help. This is one of the real accomplishments and the States should be commended on that.

No. 18 relates to the same thing. The surveillance program on Lake Erie to be established by the Federal Government is proceeding, and they are working with the States on that.

The phosphate removal program I think has proceeded a little better than some of us had expected. We had proposals now -- I know I am with Mr. Poole. He did not get his results, but in long association with Mr. Poole I have learned that he is a wise man to listen to and we should heed his advice. Some of our people have indicated to us that the phosphates can be removed by changes in operations of the plant at a cost much less than we would have anticipated.

I think what is called for now are some pilot plant demonstrations, and possibly we can hope to get going on that.

I think you have two cities of interest here, and possibly we can move forward with those -- one is Detroit and the other is Fort Wayne. Possibly, if the conferees wish, we can recommend that the Secretary try to expedite these projects and see if we can come up with plans which will remove the phosphates. Since we have two willing guinea pigs in that area, I suggest we accept their offers and go ahead.

The next point on regional planning I think has been adopted by most of the States.

Let me skip 22 and 23.

I think the Federal installation program is moving forward and we will be in operation by August of 1966, except for that one base.

How about Selfridge? When are you going to have that finished?

MR. POSTON: Selfridge is out of the basin.

MR. STEIN: I know, but just for my information.

MR. POSTON: I can't answer that. We can ask Mr. Harlow.

MR. STEIN: George, are we home free on Selfridge with a commitment, or do we still have that up in the air?

MR. HARLOW: No.

MR. STEIN: We are not home?

MR. HARLOW: No.

MR. STEIN: So while it is out of the basin, I think the Secretary indicated that he was working with that. We will work with Michigan on that and hopefully report to the conferees to see if we have solved that problem the next time we meet.

The next point is the point that Mr. Spisiak talked on, on the Corps of Engineers' dredged material.

I don't know if the Corps man is here, but I don't see, with the exchange of correspondence, gentlemen, that we have seen daylight on that yet.

I am not sure I understand why we are going into a cost-benefit ratio study on this at all. As far as I am concerned, if the dredged material is to be kept out of the lake, it is to be kept out of the lake.

We have never asked the steel representatives or the municipal representatives to go into cost-benefit studies on whether they should remove their wastes from the lake. If they did, I don't know how far we would be along.

We have indicated that these wastes have to be kept out. I wonder if we could get -- and you may have had this -- an agreement on how much this is going to cost and present it to the Corps and see if they will do it.

However, unless there is disagreement here, I don't see the relationship of a cost-benefit study to removing deleterious dredged material from the lake.

Mr. Metzler?

MR. METZLER: I don't know that it has any connection, Mr. Chairman, with the matter at issue, but I do understand why the Corps asked for a cost-benefit study.

As you know, they are required to show the Public Works Committee -- Senator Ellender especially this year is very adamant on this point -- a cost-benefit ratio on all its work. They can't go back into the Congress with less than a substantial cost-benefit ratio, or they will be turned down by the Public Works Committee.

Now, the Public Works Committee is the committee on appropriations, and I believe this is the reason.

But the only reason that I make this explanation is that I think it requires probably a partial answer rather than one which can be answered entirely.

MR. STEIN: This is true in regular rivers and harbors work, but I think in pollution control work we haven't had that.

I think the thing we have to find out is how much extra this will cost the Corps of Engineers a year to put the dredged material in appropriate places, behind dikes, rather than dumping it in the lake, and see if they or the Congress want to buy it in addition to the cost-benefit. But I would simply, in going before the people we go before in the Congress, use the principle of clean water overriding other cost benefits.

MR. POSTON: We gave that figure this morning -- the Corps did -- General Dodge.

MR. STEIN: I didn't know that that was read. Yes, it was. It is estimated about $110 million over a ten-year life, which is $11 million a year.

MR. POSTON: He has an annual charge of $16 million more. He says that it is $16 million a year.

MR. STEIN: $16 million a year to prevent dredged material from getting into Lake Erie?

MR. POSTON: Right.

MR. STEIN: I would say here and now I think it is a bargain, but, of course, it is for the Congress to make the decision.

The reason that I say it is a bargain is because I think if we were to deal with a municipality having that kind of a problem and you were a State and that was what it was going to cost them, I don't think we would have any hesitancy in making the recommendation to a municipality. I think the Government should assume its obligation.

The next point is the Technical Committee.

MR. LYON: May I comment?

MR. STEIN: Yes.

MR. LYON: Mr. Chairman, I have to catch a plane, so, with your permission, I would like to designate Mr. Miller as Pennsylvania's conferee for the remainder of the conference.

MR. STEIN: Will he be prepared to talk as to dates?

MR. LYON: Yes. He has all the information.

MR. STEIN: All right.

MR. LYON: With regard to Item 26, I feel, as I think is generally agreed, that the Technical Committee should not only be continued, but should continue to devote itself to the questions which remain very largely unanswered that were set forth in the adoption of the technical report presented this morning.

In this connection, I want to emphasize again that although, as you have indicated, a number of pilot plant studies are going on that will tell us how better to remove phosphates, and certainly there are many ways of doing this, our knowledge in this area needs to be expanded.

However, even more than that, I feel, as I think most of the conferees, or all of you do, that phosphates are an important pollution problem of this lake.

Many of the experts that spoke to our committee made it very clear that our knowledge of the pollution and its effects on this lake is extremely limited, and it would seem to me essential that we devote much more effort than we have so far done to answering the question as to what, in addition to phosphates, are some of the other things that have caused the problems of this lake.

Thank you very much.

MR. STEIN: Thank you.

Mr. Oeming:

MR. OEMING: Mr. Chairman and members of the conference:

I would support Mr. Lyon in his remarks on the report of the Technical Committee.

It is my understanding from several of the members that they did not have the opportunity to go into this report thoroughly, review it and concur in it. There are also some questions that I believe are not answered to the full satisfaction of me, at least, and to answer the charge that was given to the committee fully.

So I would like to urge that this committee be continued as an active committee and devote itself to further study and obtain more of a consensus as to the conclusions in the report that were made here today.

Now, while I have the floor here for a moment, I may be out of order, but as to some of the points you have already covered, I raise a question as to the emphasis that these conferees have placed in the past upon the removal of phosphates from the lake from all sources. Recognizing certainly that there are some unanswered questions, we are hopeful that they will be answered promptly enough to get at this problem of phosphate removal.

Summary

However, I want to ask again here as to how much emphasis should the States put on this matter of phosphate removal?

MR. STEIN: I don't know whom you are asking.

MR. OEMING: I am asking the Chairman to poll the members.

MR. STEIN: I will tell you the way I feel about this, and, of course, I am not sure that all our scientists agree.

Mr. Lyon and you raise doubts that certainly I have. I have seen these notions of what we are getting excited about come and go in the pollution field through the years. As a matter of fact, it used to be some of the industries sitting around here, and then it becomes detergents, or pesticides, or something. We always get on something that seems to be the current fad. I think we are on a phosphate kick now, and I don't mean the kind you get at a soda fountain.

Now, I do believe that theoretically the scientists are probably right. If you remove the phosphates or you cut them down, it can only prove to help the lake. Whether this is the complete answer, or whether it is really going to slow up eutrophication, or whether there are other factors we don't know about at this time, I think are very, very good questions.

We all have these doubts, and I think we all understand each other on that point.

The point is in an area like this, in dealing with a lake as we are dealing, we can only do what we know how to, or we can only deal with substances that are indicated to us.

Now, I am not sure, and I don't think anyone is sure that even if our wildest dreams are true on this phosphate removal and we do a good job, that this is going to be a panacea and we are going to see a tremendous reduction in this plankton or algal growth in the lake necessarily. Maybe we will. Maybe some of the biologists who contend that will do it are right, but I think again, as professionals -- and I think we are all professionals in this field -- we must recognize that what we are presented with is a theoretical concept that makes a considerable amount of sense in order to put it through and to follow it. It seems to be the only reasonable thing we know how to do now, and the chances of it working may be fairly good.

If we develop a method of putting this into operation that won't really increase the cost of waste treatment, we might adopt that as a standard practice in the lake.

The point is because we are faced, on the other hand, up here with this other thing, while we are debating it and arguing and sharpening our criteria, the lakes may be gone. We can't wait that long with Lake Erie. We have to do now what we know now, and the phosphates seem to be one indication.

I think the Technical Committee will have to keep going and see if we can refine this problem further.

MR. OEMING: I am not fighting this. There may be other factors. I think you have touched on the point that concerned me as a result of this session here today. The question of phosphate removal and the necessity of it is debatable.

Are we talking about a debatable subject?

MR. STEIN: I don't think it is debatable now. I don't think it is a debatable subject. I think we have agreed on maximum phosphate removal.

I think the only thing that the conferees have to have in mind is that we have a pretty good hunch that this is going to be effective. Certainly, it is not going to hurt.

Whether this will provide the complete answer, we don't know, and this is what we have to have the Technical Committee for. I have heard no one say that it isn't a good idea to remove those phosphates.

MR. OEMING: I was convinced of that.

MR. STEIN: Yes.

MR. OEMING: After two seconds.

MR. STEIN: Yes.

MR. OEMING: But I want to know if that has drifted off into the great beyond and we are not concerned with it now.

MR. STEIN: No. I think unless you get this phosphate removal, with the best knowledge that we have, all the treatment is going to do is not going to get at one of the key problems in the eutrophication of that lake.

MR. OEMING: In other words, secondary treatment now, as we know it, is not the full answer.

MR. STEIN: It is not the full answer. We must remove the phosphates, and once we remove them, we may have a more complete answer, but we still may not have the full answer.

Are there any comments or questions?

MR. OEMING: Would you rule, Mr. Chairman, on this matter on what is going to happen to this committee, the Technical Committee, that was given some assignments?

MR. STEIN: Yes. I think I have a consensus here, as I see it, that the Technical Committee should continue.

It might broaden its base in getting at the other problem that you talk about. It may wish to consult with other experts and bring them in; and the committee, if they are going to broaden this, I think they may have made a first stab.

I don't look at this as horrendous in coming in with a report that looks pretty good. I have never seen a technical committee on a subject like that arrive at a consensus in the time that this operation has been working. I think the report should be circulated, as you probably have for the States, but the Technical Committee should begin to get the comments back from the State agencies and the State administrators represented here, and get out another draft report which will more nearly, or, if possible, completely reflect the consensus.

Now, that can be done. We did this. Mr. Kittrell, I think, and the industries and the States did this on Lake Michigan. I think you can do it here. It takes a lot of work and you are going to have to get together for several meetings before you can possibly do it on a subject like this.

MR. OEMING: Mr. Stein, may I clarify my position?

MR. STEIN: Right.

MR. OEMING: I think you are indicating that I am dissatisfied. I am not dissatisfied with the work of the committee.

The committee has done a lot of work. What I am saying is that I don't consider that the job has been done, and I don't consider that the report as presented reflects the consensus as you have indicated here. I would like to see that done.

MR. STEIN: I think everyone is in complete agreement. I don't think anyone disagrees with what you said, Mr. Oeming.

I think this is the next job of the Technical Committee. Your job is to do this, as I see it, and you have the details.

Let me explain this: If we are going to meet again, as I expect we will, on a complicated problem like this, firstly, you have to come up with the Technical Committee reports which reflect the consensus of the Federal Government and the five States; secondly, come up with a pretty clear and as precise a statement as we can on the phosphate problem and progress; and, third is the identification of what other problems we see to explore on dealing with the lakes and what we have to do about them.

Mr. Poston?

MR. POSTON: I would like to make sure that the mission which the conferees developed and gave to the Technical Committee -- they confined their work to these specifics -- you can add any other specifics that you would care to, but I would like that to be well defined to them.

MR. STEIN: Right.

MR. POSTON: And that be the entire scope of their work.

MR. STEIN: Yes. Well, I don't think there is any question there.

May we go on to the next point. This is probably the reason why we are all here, this question of the time schedule for the work. Maybe we can work back from the middle. The easier one is the discontinuance of garbage and trash dumping into the waters immediately.

Have any of you had any doubt about adopting that as a policy, or not putting it into effect?

MR. OEMING: It depends on what you mean by "immediately." If it means right now, I don't think so.

I think so far as the Michigan report is concerned, there is now an adequate statute and regulations that are attacking this problem. It certainly will be attacked with vigor. If that means "immediately," within the next few months --

MR. STEIN: Yes.

MR. OEMING: -- it will be done.

MR. STEIN: I would suggest that I don't think there is any way to handle a problem like we have on Lake Erie without a progress meeting every six months, or reconvening every six months.

Without anticipating whether the conferees are going to do that now, I would expect on the assumption they are not going to propose that later, that we do that -- that in six months from now, when we come back, we all have a pretty good report on the question of the dumping of garbage and trash, and how far we have moved with this, with the hopeful substantial elimination of this.

This is the kind of policing operation that you can never completely eliminate. I suggest, though, that we try to get substantial elimination of this by the next time we come in.

Mr. Poole?

MR. POOLE: Mr. Chairman, I don't buy that as long as you say "substantial elimination."

I would remind you that we have had a law for, I guess, ten years that makes it illegal to dump garbage and trash along the road or into any stream, and it makes it the responsibility of every local law enforcement officer to enforce that law.

We still can't keep all of the beer cans out of the streams in Indiana. Everybody who is involved in this has to realize that any program has to be tempered with some policing.

MR. STEIN: We all recognize the limitations on that.

Now let's take up Subparagraph (c), Industrial Waste Treatment Facilities Completed and in Operation by January 1, 1969.

Let's go down the States as they appear in order. Let's do this from west to east, as is usually done.

Michigan?

MR. OEMING: The final date for industrial compliance with effluent restrictions is November 1, 1969.

MR. STEIN: November. You are a little beyond?

MR. OEMING: Yes.

MR. STEIN: November 1, 1969.

How about you, Mr. Poole?

MR. POOLE: I think we can meet it. January of 1969.

MR. STEIN: Ohio?

MR. EAGLE: Right. January 1, 1969 -- 100 percent completion.

MR. STEIN: Pennsylvania?

MR. MILLER: By the end of 1966, they should all be in compliance.

MR. STEIN: And New York?

MR. HENNIGAN: There always has to be somebody to disagree.

The New York State program is predicated on a six-year program for the entire State, which brings us to 1971.

The general policy followed throughout the State is to use as tight a schedule as we can, depending on circumstances, the concluding date being 1971.

MR. STEIN: You know, the problem we have here is trying to get this in an equitable operation, and I think we are going to have to have a fairly uniform date for the conferees in all the States.

MR. METZLER: Murray, you and I have had a lot of experience in this business, and we have set dates, and we have gone back and then changed them, altered them.

It seems to me that one of the things we might learn about this is that one wants to adopt dates realistically. I have not been in New York long enough really to have enough information on this point to be sure, but it appears to me, as I understand the problem, that if we are to start building tomorrow some of the things that need to be done, and assume that everyone would build as fast as he could physically, I doubt very much if we could ask to get it done by 1969.

I am afraid that is a thing which would bother us.

MR. STEIN: Yes.

MR. METZLER: We are pushing ahead just as rapidly as we possibly can. We shouldn't allow any delays.

MR. STEIN: No, but I am thinking in terms of the five-State operation.

Let me make a proposal here on this to try to put it in the middle. Three States say they can meet January 1, 1969; two don't; one says November.

Supposing we say for this operation here for the conferees, at least maybe New York -- you can have your reservations but I am talking about the Secretary, and he is going to come up, I am pretty sure, a proposal as to this -- my recommendation is a proposal and possibly a consensus, if you want, that we say "as early as possible but not later than January 1, 1970." That is in the middle.

MR. POOLE: Mr. Chairman, could I make a suggestion that we might borrow a lead from the Lake Michigan conference?

I have forgotten the date we agreed upon there, but we did agree upon a date with the understanding that there might be an occasional extenuating circumstance here or there. If someone could come in and document real reasons for a longer time, that it would be acceptable.

How would you react to that?

MR. STEIN: Well, as Dwight says, we have worked together for a long time. Mostly we have worked on considering the extenuating circumstances.

However, I think this is right, and I think this is implicit in any date we set. I don't think if we come up with this, that this would be too unreasonable.

MR. OEMING: What date are you talking about now?

MR. STEIN: January 1, 1970.

MR. POSTON: If you are going to provide for extenuating circumstances in some cases, why not leave that at January, 1969?

MR. STEIN: Well, you could do that except you have two of the major States that say they cannot comply.

The point is if we can get these within striking distance, and I think if we could put the date of January 1970 in we can get all the States in with New York within striking distance and maybe most of their projects within striking distance, it would help.

The difficulty that I have in setting the date very tight -- and it always looks nice at a conference -- is that once you get too many of these extenuating circumstances we are back here changing the dates.

I would think that the January 1970 date, in view of the fact that we have two major States -- and I know the problems in both of these -- the Detroit complex and the Buffalo complex are not going to be easy, and neither will the Cleveland one -- these are among the toughest cases that we have in the country to get going. I think we have to recognize these problems.

MR. OEMING: Mr. Chairman, may I comment a moment as being one of these States that seems to be longer than the others here?

MR. STEIN: Yes.

MR. OEMING: I would point out to the conferees that the dates that were arrived at in Michigan were only arrived at after long consideration of the magnitude and the extent of the problems in the area.

The November 1, 1969, date is the one that applies to the longest ones. There are many of these that will mature in 1967 and 1968.

MR. STEIN: Yes.

MR. OEMING: I would also point out to the conferees the danger here when a program has been changed of tightening it up to the point where you now get into a legal hassle and you get into appeals and proof of the necessity and the practicability and the reasonableness of shortening the time. With this you can lose all of the time you think you have gained, by setting an unrealistic date in court.

MR. STEIN: Right. You recognize that the first date, January 1, 1969, was just the date that was proposed by the Federal conferee. Now we are here to decide on a date.

I do think, in light of that, the 1970 date might be a date, but I would suggest one modification, in light of what you said and in light of the experience and practice we have had with Mr. Hennigan in New York, that it is recognized that this be the outside date for each industry. We are dealing with just industries, but I suggest we do this with the cities too. I would suggest by the next progress meeting -- and I assume we are going to have that in six months -- the States will come up with a time schedule for each industry as to their completion date, industry by industry.

MR. OEMING: You have that from us.

MR. STEIN: Yes, it is true some of the States have done it, but I am talking for all the States.

MR. OEMING: All right.

MR STEIN: And this we have found, at least in dealing with New York on other problems, to be a very satisfactory way of doing this, because you almost anticipate your extenuating circumstances. The easy ones we are really speeding up, so perhaps we can try that.

MR. POOLE: We are settling on January 1, 1970?

MR. STEIN: Not later than that, and as early as possible. Within six months all the States will come up with a figure on the operation of every industry, and when they are to be completed, at the next conference, and they will report that.

The next point we have is the municipal treatment facilities to be completed. Let's work backwards. We had the same date, January 1969, for the municipalities. I guess there is some validity in having the municipal dates and the industrial dates coincide, but let's hear from Michigan.

MR. OEMING: Here again, Mr. Chairman, the longest date is November 1, 1970. There are two, I believe, with that maturing date. There are some in 1969 -- I can't find it here exactly, but there are some in advance of this.

I would say this, Mr. Chairman, and this applies both to municipalities and industries: We have to recognize we are already experiencing in Michigan, and I think elsewhere, that you have problems of getting contractors and you have problems of getting equipment deliveries. As of now we are being delayed eight and ten months on equipment deliveries for waste treatment facilities. All of these things have to be taken into account when you decide on what date you want. Some of these were taken into account -- not all of them -- because they did not exist at the time we set these schedules.

MR. STEIN: Could we do this again? I think there is some validity in having the same date. You did it and we have done it here in the original proposal. I think if we have January 1, 1970, we might consider doing the same thing for the municipalities, if this is agreeable.

Now, with the same proviso, I would suggest that in six months we come up at the next meeting with an indication of not later than January 1970, but the ones we can do before -- and I have a suggestion that I just thought of here -- rather than work out the other dates here, just recommend municipal treatment and completion of plans and specifications, completion of financing, construction started, as we did in the development of the individual schedules for municipalities, recognizing that completion will not be after January 1, 1970. The States will assign dates for all these points for each municipality, so we will have that tailored for everyone.

MR. POOLE: A question there, Mr. Chairman.

MR. EAGLE: Mr. Chairman, I don't believe that it would be practical to try to break it down to that extent this soon, because many of these cities and counties have to make extensive studies and prepare general plans and reports. This is just going to take time.

Many of ours are under way, but others are going to take a year from now to be completed before they even know what they are going to build, so you can't very well schedule detailed plans of financing and all of that sort of thing.

I would recommend that we break this down to the point of having studies and general plans completed by not later than July 1, 1967, and construction completed by not later than January 1, 1970.

I don't see that you can, in all cases, break it down much finer than that at this point, because we don't know what we are going to do until we get the report and general plan.

MR. STEIN: Are there any comments on that?

MR. POOLE: My only comment is this: I have no quarrel with the dates, providing we have an understanding about phosphates.

That is, we have heard a lot about phosphates in August, and again today, but, as of this moment, I don't know what to tell Fort Wayne, Indiana, to do in the way of phosphate removal.

Now, I heard today that you found an answer down in San Antonio, but, candidly, it involved a lot of money. I would like to see it tried in a few more places before we attempt to impose it on our taxpayers.

I just want to find out if we are talking about this business of phosphate removals in these dates, or if we are talking about secondary treatment and chlorination. To me, they can be two different things.

MR. OEMING: Mr. Chairman?

MR. STEIN: Yes.

MR. OEMING: In a case where we have set dates here -- and I believe it is November 1, 1970 -- this includes phosphate removal, 80% phosphate removal. The same schedules were set on that basis, that there was work needed to be done here to determine what kind of facilities to design for Detroit and Wayne County. This introduced a period of time in which the investigations needed to be made.

We talked this morning, or earlier today, about pilot projects. I think you will find that it is physically impossible to do the pilot projects, or even the Federal research project coming up with design criteria by fall to get a $110 million project in Detroit built by January 1, 1970.

MR. STEIN: I think the phosphate problem is a serious one and obviously will have to be taken into consideration.

I think adequate phosphate removal should be incorporated in the plant. Of course, it may be a more economical thing to put it in -- you don't know whether to put it in at the beginning -- or you may be able to go back and design with the notion of hooking it on at the end. I do agree that it should be done.

I think we did set the dates with this notion. I suspect that no one is going to ask you to put the taxpayers' money of any of the cities here into a phosphate removal operation that we don't think is going to work. We are going to try to do this. I think we are all in agreement, Mr. Poole, that the information we have on phosphate removal needs a little pilot plant work to see if this works out. If it does -- I have looked into this and it looks fairly good -- it may work.

However, I think these dates should consider the notion that we are going to design the plants for the maximum removal of phosphates. I suspect, as we stated, that that has some flexibility.

MR. OEMING: Well, from the conference record,

Mr. Chairman --

MR. STEIN: Yes?

MR. OEMING: -- we talked a good deal about 80 percent removal as being attainable.

MR. STEIN: Yes.

MR. OEMING: Now we have to apply the technology that still has to be established to getting that 80 percent.

Now, there is one more point I would like to make. You pointed out the desirability of concurrent dates with industry. In most of the industrial problems, the methods are fairly well known as to what you can do, but we are dealing with something different when we are dealing with the municipal problem.

If we were just talking secondary treatment, you could perhaps do this, but we are trying to get at the phosphate problem. I think for this reason you cannot use concurrent dates with industries and municipalities.

MR. STEIN: You set it up yourself with concurrent dates.

MR. OEMING: No, no.

MR. STEIN: Yes.

MR. OEMING: No, we didn't, not in the case of Detroit.

MR. STEIN: What is your date of completion in

Detroit?

MR. OEMING: 1970 -- November 1, 1970.

MR. STEIN: You are a year later?

MR. OEMING: That is right.

MR. STEIN: Well, what is your feeling on that?

MR. HENNIGAN: Murray, why can't we proceed on your suggestion of January 1, 1970, and on the phosphate removal thing it is going to be kind of speculative. We are going to have to depend on the Technical Committee and the resources of the Federal Water Pollution Control Administration on what the economical and practical means to incorporate the phosphate removal into the general plant design are, both new plants and existing plants.

We are in an area we are not too sure of, so I think we are going to have to proceed on a basis that we are going to find out reasonably quick.

MR. STEIN: Right. Again, with this we will get schedules from each one.

MR. OEMING: Well, Mr. Chairman, unfortunately this concept throws a program that has been all established with dates all firmed up here, at least in my case.

Now, what do you suggest here?

MR. STEIN: Do you have completion of plans and specifications?

MR. OEMING: Yes, we do.

MR. STEIN: What are your dates?

MR. OEMING: Here is the schedule for Detroit -- it is the same for Wayne County and the City of Riverview, I think, and the City of Trenton, Grosse Ile Township, and we have three dates for Detroit -- complete engineering study and basics of design by April 1, 1967: construction plans and specifications approved by November 1. 1968; finish construction by November 1, 1970.

Now, in the case of Wayne County, complete preliminary engineering study on basis of design by April 1, 1967; construction and the plans and specifications approved by November 1, 1968; finish construction November 1, 1970.

For the City of Riverview, the same dates and same requirements.

For the City of Trenton, the finishing of construction is the same as the preliminary engineering study, by April 1, 1968, and they are doing a pilot plant study on their own.

These have all been established, Mr. Chairman, and I think it would upset the whole program here if we have to go back and start all over with these people.

MR. STEIN: I don't know that we want you to start all over.

MR. OEMING: When you said January 1, 1970, then we are just out of business.

MR. STEIN: I am not sure, but let's see if we can work this out.

What was that interim date that you suggested? Let's see if we can work back. I have your date, July 1967, but what did you suggest should be prepared?

MR. EAGLE: General plans, report and proposals by July 1, 1967, with completion of construction by January 1, 1970. That is what I suggested.

MR. STEIN: I don't know about that general plans and proposals. I am not sure exactly what that means.

MR. EAGLE: It means what we are going to do, and how we are going to do it.

MR. STEIN: Does that mean completion of plans and specifications, or is that the preliminary plans?

MR. EAGLE: General plans -- general plans and report. You may not want to give them that much time to complete this phase, but I think in some cases it is going to take about that long.

We have a tremendous shortage of consulting engineers in Ohio, like every place else in the country.

Most of ours will be completed before then.

However, I would like to give an example of the westerly treatment plant here in operation, where secondary treatment is being required. They are having a study of this made to decide whether they are going to do it at this site or some other site, or completely abandon and dump it over to the easterly plant. These things will take time.

MR. STEIN: What I am getting at is this, Mr. Eagle: Let's suppose you want to do this. Why can't you fit your dates -- and I am trying to get at it and we will come to yours later, Larry -- why can't you fit your dates into something similar to what has been proposed by Mr. Poston?

By the way, this is not unique here. On the completion of plans and specifications, completion of financing, and construction started, you say that you can give that six months from now.

Let me put it this way: If you can say six months from now that you expect to have general plans and specifications for all these projects by this date, until you get these you can't fill these in yet. This may be a report, given the situation in Ohio, that we can get.

Then, as soon as we get that

we can fill in the blanks, but I think because they have some other interim reports -- I recognize there is a specialized situation here -- I think it might be an advantage if we kept these and filled these in as soon as we possibly could, as long as we stayed with these dates.

MR. EAGLE: Yes, I will agree to that, Murray, that as soon as we get these general plans and reports, we should be able to fill in the other dates.

MR. STEIN: Yes.

MR. EAGLE: But without that, we are just guessing.

MR. STEIN: Let's do that, and you may have something. At least, the record will show how far we have moved in the next six months.

MR. EAGLE: Could we permit Mr. Birkel to speak?

MR. BIRKEL: Mr. Stein, we have had $11 million worth of construction at the southerly plant in the last three years. There hasn't been anything said here, but when you are operating a plant and you are enlarging it and improving it and you are trying to run it, you can only construct so much at one time. Otherwise, the other solution is to turn over one or two regions to the river and tear the plant apart and put in your construction, so any construction schedules that are dug up have to take this into consideration.

This applies to our southerly; it applies to our westerly plant; it applies to the Detroit plant, I think, and any other existing plant. You can only have so many contractors going at one time. Otherwise, they get into each other's way, and if you try to operate, it is simply impossible.

MR. STEIN: Sir, I absolutely agree with you.

I would hate to add up the years of experience on this problem that you have sitting up at this table here (indicating conferees). This is the problem we deal with all the time.

What I am suggesting, though -- and this isn't unique to Cleveland -- we have had this in every large city where they are expanding or changing the system -- is that for each specific plant we would like to have the States along with the cities work out the schedule for what they are going to do. Then we can make a judgment and the people can make a judgment whether progress is being made.

We want all these schedules to be reasonably close together, so that one State is not three years ahead of the other. That is what we are driving at. This is the kind of thing that six months from now, we hope, or as soon as possible, we hope, Ohio will be able to come in and tell us about.

Now, no one is arguing that you are to suspend operations or that you should proceed at a pace faster than it is physically possible for you to proceed.

Again, I don't know if we can get agreement here. We have agreement on the industrial waste disposal.

Could we say that the Federal conferee has recommended, in listening to this, that the municipal treatment works be constructed and in operation by January 1, 1970? However, recognizing the large and complex operations here, we would like to consider completion of plans and specifications, completion of financing, construction started operations, as well as construction completed dates, if those interim dates can come in as soon as possible, to be done as soon as possible. However, we want a report plant by plant at the next meeting.

Now, if there are cases, such as Mr. Oeming has going out otherwise, we would, in addition, like about a month before the next meeting for each of the States to make these plans available to us.

That will give you, say, five months. You can do this now.

MR. OEMING: What do you mean, "plans"?

MR. STEIN: Not plans, but dates. I am sorry. You get your dates in on your cities and say Michigan can do this now. The States can get these dates in by five months from now. We will circulate this to the other States. Then each of the States will come in with detailed dates on each of their municipalities.

The conferees will then be able to make a judgment as to whether the other ones are reasonable under the circumstances, and perhaps we can adopt, as I think we have done in New York, pretty detailed schedules tailored to each individual industry and municipality in your area.

Would that be agreeable?

MR. OEMING: Mr. Stein, I have a couple of comments.

MR. STEIN: Right.

MR. OEMING: First of all, Michigan has presented its program here today. That will be the same program we present six months from now as to what the time schedules are and what is required in the way of phosphate removal and other constituents.

No. 2, with the introduction and what you said here, that the Federal conferee recommends January 1, 1970, you immediately place the State of Michigan in opposition to the Federal conferee.

Now, what happens in a case like this?

MR. STEIN: I don't know that you are in opposition to the Federal conferee.

MR. OEMING: We already are.

MR. STEIN: Wait a moment. The Federal conferee recommended January 1, 1969, in August of 1965, and I don't know that your being in opposition to the Federal conferee wilted your confidence or caused your program in Michigan to falter one second. I am not sure that we are going to face any greater catastrophe at this point by any theoretical opposition like that.

The point is, what we are doing is the Federal conferee is giving all the people a reasonable target -- what he thinks would be a reasonable target. I think what we have to do in a complicated case of this kind is to get all your dates in.

We already have them in Michigan. The other States will come in and the conferees will be able to determine whether the circumstances in which you have created your dates, and the variance you have from these dates, if any, in writing your total program will be an equitable solution to the problem.

MR. OEMING: Well, suppose they are not? Then what do we do?

MR. STEIN: Well, I don't know. This is a question. I wouldn't say they would not, and I wouldn't take that pessimistic an attitude; but again I think as we work in this field, we are getting more sophisticated and we are getting more complicated data.

We set up dates on the Hudson River Valley. Bob Hennigan in New York came up with a series of dates on these. Some were a little before and some a little after the dates we set at the conference.

Now, given the complexity of the problem and the financing of everything on the Hudson River, I would say -- and this has nothing to do with this Meeting I have to go back to the other conferees -- that that is substantial compliance.

This is the way we are going to have to do this. Of course, we are going to have to talk to New Jersey and the Interstate Commission.

Now, I think if we are going to try to get an equitable solution here, if we try to set a median date that we are shooting for and try to get all of you people to come in with individual dates, so that we can judge progress for individual cities, and if these dates kind of cluster around this meeting, and you have enough maybe before and maybe a few after that, we will recognize that we have an equitable program. By doing that we will be able, in coming back at six-month intervals, to judge progress and have the people judge progress on the individual plants and the dates you set up yourself.

This is the best way I know of to arrive at this on a five-State basis, because, otherwise, we are going to have one date for all, and this does not seem to be working.

I am trying to work out an equitable basis, so each State will come in with different dates for each industry and each municipality, but all clustered around one central date, so that it will be an equitable operation that will move forward. All right?

MR. OEMING: Well, I have this other question, Mr. Stein, of what these people do who had appeared for hearings and have agreed upon dates.

What kind of reaction would you expect from them? It is possible they could sit around and say, "Well, we are going to wait and see whether the Federal conferees and everybody agrees to this or not."

MR. STEIN: No, no, because these are outside dates.

MR. OEMING: We were told January 1, 1970. That is an outside date you are talking about.

MR. STEIN: We would hope that the States would set up a date sooner than that.

Now. if you have a date after that, I think you might want to present, like they do in every other State, with your persuasive powers, and your own persuasive powers to show the extenuating circumstances, and possibly get a little variance if it isn't outside the ball park.

This is what Mr. Metzler was speaking about before. I think we have worked like that for the past year with you on your dates. I don't think this is going to disrupt any program.

MR. OEMING: I hope not.

MR. STEIN: Well, I am confident it won't.

If Mr. Poston's proposal did not so embarrass you or shake you where you felt that you were in such narrow confines that you could not move, and you came up here with a date of November 1971, and you did that, and you got 36 of your 37 people to comply, I think you are moving along pretty well.

MR. OEMING: But you are still off on the dates.

MR. STEIN: The point is, you are a little ahead of the others. There is no assurance that some dates in the other States --

MR. OEMING: Maybe there is an appendage attached to this. Maybe we should have waited.

MR. STEIN: I don't think you should have waited, and I think with your program, you get enough built-in delays in these programs without creating any yourself that come up, so I don't think you should wait.

I think you are ahead. Being ahead, it seems to me -- and again I don't want to sit here as a judge -- I am here as a conferee -- but being ahead and moving ahead gives you certain equities.

MR. OEMING: All I have to say, Mr. Chairman, is that the dates are established. If you change any dates, I don't know how it is going to be done as far as the State is concerned.

MR. STEIN: Right.

DR. ARNOLD: Mr. Stein, I would like to comment to you that our program is based upon a permit system, and many of the industries, or all of the industries and municipalities in this State and in the Lake Erie Basin that have appeared before us, have been given these permits with these conditions of compliance.

MR. STEIN: Yes.

DR. ARNOLD: What you are asking us for is to redo this in six months. All of this is in our report now.

MR. STEIN: We are not asking you to redo anything.

DR. ARNOLD: You are asking us to update their activity during this period. These permits are good for one year in most instances, or within six months, if we are having special problems.

MR. STEIN: Yes.

DR. ARNOLD: So I can't see any great advantage to calling or reconvening this conference and asking for detailed reports of the planning and accomplishments of these people, when we have already given them a year, in almost every instance, to do these things. I just don't see the reasonableness. I don't know why you have this discussion.

MR. STEIN: Well, here is our finding here. If the conferees don't want to reconvene this, this is fine with me, except you know generally this is the Secretary's decision that we reconvene.

My notion here is that we have many, many problems in a complicated case like this that call for a constant review, or else you fall behind. We have a phosphate problem that we have not seen our way out of the woods on yet.

I would think we would want to get together and report and see where we are with the Technical Committee on phosphates.

We have a question here where we have not gotten a list that is agreeable, and I think this should be presented to all conferees for their consideration on the agreed-upon dates for the whole program.

Now, this is the kind of thing that all the conferees should consider. I am not suggesting that you have to rework your program, but what I am suggesting here is that we should get a submittal of detailed dates on these projects which the other conferees will be able to go over to see that we are all in agreement on the time schedule for all the other conferees. I don't think we have done that, and it is going to take a little agreement to do this.

I would hope we would have a report as to where we are going on that dredging, and a report to give you within six months.

I would say on the experience that we have had in the Missouri and Mississippi Rivers, that if you don't reconvene these conferences and have a meeting at the end of every six months, you will find your program falling apart.

I will say this: Our experience has been that the State administrators have been the ones who were clamoring for these meetings. They said that they were the most helpful tool that they had in helping to move their program forward, and I think these people are well known to you. You can check with them on their experience. I have found that these are helpful in moving things forward.

MR. OEMING: Mr. Stein, just for my benefit, you have our schedule.

MR. STEIN: Yes.

MR. OEMING: What further do you expect from Michigan in six months?

MR. STEIN: On the schedule?

MR. OEMING: We are talking schedules now -- time schedules.

MR. STEIN: Nothing.

MR. OEMING: What do you expect from us in six months?

MR. STEIN: Nothing.

MR. OEMING: All right. That's all I want to know.

MR. STEIN: However, in six months, before the next meeting, your schedule presumably will be examined by the other conferees.

MR. OEMING: I don't care.

MR. STEIN: Or, if they have the schedule here, if this is all done, fine; but I think what I hope to accomplish at the end of six months -- and I think it is too complicated to do here because we couldn't get a universal date for five States in as complicated a situation as you have here -- is, say, that every one of the States has time schedules for every one of their identifiable sources which will meet the program in a way which is satisfactory in general to all the conferees.

MR. OEMING: You answered my question in the first sentence. I am all through.

MR. STEIN: All right.

Are there any other comments or questions?

(No response.)

MR. STEIN: If not, perhaps we can call this meeting to a close.

MR. EAGLE: I have one.

MR. STEIN: Go ahead.

MR. EAGLE: I have a comment.

This is not exactly related to this conference, but it has a bearing on it.

I would like to ask Mr. Poston, No. 1, when we may expect a comprehensive report on the findings of the Lake Erie field stations, the findings on recommendations on, No. 1, the Maumee River, and, No. 2, on Lake Erie.

Now, we are going to be confronted with a matter of setting up our criteria and standards for both of these bodies of water, and we certainly should have the benefit of the Federal findings and recommendations to guide us.

As a matter of fact, we have very little information on Lake Erie itself. This has been an extensive survey over the last three years, and we have been given various dates for the release of these reports, most of which have long passed. I think that we need some kind of a commitment here as to when these reports might be available.

MR. POSTON: For the Maumee River, I think we have said to you that you would have this in July of this year. Right?

MR. EAGLE: You said May. I had not heard the July date.

MR. POSTON: To the best of my knowledge, it will be available in July. I did not check yesterday on this, but a couple of weeks ago they told me that it would be available in July.

MR. EAGLE: We expect to hold hearings in September, and we certainly need this report.

MR. POSTON: Very well. We will have this available.

Relative to the Lake Erie study, I think that is in the end of this year. You will get the data and the end report on the Lake Erie study.

I don't know whether Mr. Hubbs is here right now --

MR. EAGLE: I have talked to Mr. Hubbs and have not been able to secure a date from him.

MR. POSTON: We will have a report for you by the end of this year.

MR. EAGLE: Thank you. That is what I want to know.

MR. OEMING: Mr. Chairman, I have one more question.

We have received the proceedings of the Cleveland conference in August of last year. We do not yet have the transcript of the conference at Buffalo. Could you tell me when we might expect those?

MRS. PIERE: That has gone to the printer, but it was the one which we got such a very bad transcript on.

MR. STEIN: Off the record.

(Discussion off the record.)

MR. STEIN: I think everyone is about exhausted and ready to adjourn.

I would like to thank you all for coming. I think we have moved pollution abatement forward.

I think we are making as much progress in this case, considering the complexity of the case, as any case we have ever been on. I do think that you have helped us and our Department and our Secretary by your reception here and all these activities.

At this time, we will stand adjourned.

(Whereupon, at 5:45 p.m., an adjournment was taken.)

(The following document was submitted for inclusion in the record after completion of the record:

THE LEGISLATURE - STATE OF MICHIGAN
WATER RESOURCES PLANNING

Manly Miles Building
1405 South Harrison Road
East Lansing, Michigar 48823
Phone 517/337-1323

June 21, 1966

Chairman
Conference Re Pollution of
Lake Erie and its Tributaries
Cleveland, Ohio

Dear Mr. Chairman:

In recognition of the growing public concern with the problems of water management, the Michigan Legislature has created a Joint Committee to assess and evaluate programs relating to this vital natural resource. In addition to examining the need for new legislation, the Committee will develop a state-wide water policy and initiate long range planning to provide a framework for future activities. The problem of water pollution abatement is receiving highest priority.

I am taking this opportunity to offer our Committee's support for these proceedings. I am certain that you will hear from our Water Resources Commission of the remarkable progress that is being made on the Michigan water courses tributary to Lake Erie. You may recall a similar conference was held in the Detroit area at the request of Governor Swainson in 1961. The efforts and studies initiated at that meeting are now bearing fruit.

The benefits arising from these conferences have been demonstrated in our State as well as in other regions of the country. Their stimulus and catalytic effect cannot be minimized. We wish you success in your endeavors with Lake Erie.

Very truly yours,
/s/ William R. Copeland
Chairman

WRC:lb)

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* U.S. GOVERNMENT PRINTING OFFICE : 1966 O—228-679